Logon

Welcome to DialogLink - Version 5
Revolutionize the Way You Work!

New on Dialog
Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*® (*DWPI*SM) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new DWPI enhancements and report templates at http://www.dialog.com/dwpi.

DialogLink 5 Release Notes
New features available in the latest release of DialogLink 5 (November 2005)

• Ability to resize images for easier incorporation into DialogLink Reports

• New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)

• Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database

• Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Log On Msg

NEW FILES RELEASED

***BIOSIS Previews Archive (File 552)

***BIOSIS Previews 1969-2007 (File 525)

***Engineering Index Backfile (File 988)

***Trademarkscan - South Korea (File 655)

RESUMED UPDATING

***File 141, Reader's Guide Abstracts

                    ***

RELOADS COMPLETED

***File 5, BIOSIS Previews - archival data added

***Files 340, 341 & 942, CLAIMS/U.S. Patents - 2006 reload now online

                    ***

DATABASES REMOVED

Chemical Structure Searching now available in Prous Science Drug

Data Report (F452), Prous Science Drugs of the Future (F453),

IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein

Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus

(File 302).

                    ***

>>>For the latest news about Dialog products, services, content<<<

>>>and events, please visit What's New from Dialog at <<<

>>>http://www.dialog.com/whatsnew/. You can find news about<<<

>>>a specific database by entering HELP NEWS <file number>.<<<

? Help Off Line

* * *

Connecting to Rob Pond - Dialog - 264751

Connected to Dialog via SMS00334

? b 15, 9, 610, 810, 275, 476, 624, 621, 636, 613, 813, 16, 160, 634, 148, 20, 35, 583,
65, 2, 474, 475, 99, 256, 348, 349, 347, 635, 570, papersmj, paperseu, 47

[File 15] **ABI/Inform(R)** 1971-2007/Mar 26

[File 9] **Business & Industry(R)** Jul/1994-2007/Mar 26

[File 610] **Business Wire** 1999-2007/Mar 27
File 610: File 610 now contains data from 3/99 forward. Archive data (1986-2/99) is available in File 810.

[File 810] **Business Wire** 1986-1999/Feb 28

[File 275] **Gale Group Computer DB(TM)** 1983-2007/Mar 26

[File 476] **Financial Times Fulltext** 1982-2007/Mar 27

[File 624] **McGraw-Hill Publications** 1985-2007/Mar 26
File 624: Homeland Security & Defense and 9 Platt energy journals added Please see HELP NEWS624 for more

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Mar 26

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Mar 26

[File 613] **PR Newswire** 1999-2007/Mar 27
File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.

[File 813] **PR Newswire** 1987-1999/Apr 30

[File 16] **Gale Group PROMT(R)** 1990-2007/Mar 26

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 634] **San Jose Mercury** Jun 1985-2007/Mar 23

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Mar 16

[File 20] **Dialog Global Reporter** 1997-2007/Mar 27

[File 35] **Dissertation Abs Online** 1861-2007/Feb

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13
File 583: This file is no longer updating as of 12-13-2002.

[File 65] **Inside Conferences** 1993-2007/Mar 26

[File 2] **INSPEC** 1898-2007/Mar W3

[File 474] **New York Times Abs** 1969-2007/Mar 27

[File 475] **Wall Street Journal Abs** 1973-2007/Mar 27

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Feb

[File 256] **TecInfoSource** 82-2007/Oct

[File 348] **EUROPEAN PATENTS** 1978-2007/ 200708
File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

[File 349] **PCT FULLTEXT** 1979-2007/UB=20070315UT=20070308
File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

[File 347] **JAPIO** Dec 1976-2006/Nov(Updated 070228)

[File 635] **Business Dateline(R)** 1985-2007/Mar 24

[File 570] **Gale Group MARS(R)** 1984-2007/Mar 26

[File 387] **The Denver Post** 1994-2007/Mar 26

[File 471] **New York Times Fulltext** 1980-2007/Mar 27

[File 492] **Arizona Repub/Phoenix Gaz** 19862002/Jan 06
File 492: This file is no longer updating.

[File 494] **St LouisPost-Dispatch** 1988-2007/Mar 24

[File 631] **Boston Globe** 1980-2007/Mar 22

[File 633] **Phil.Inquirer** 1983-2007/Mar 22

[File 638] **Newsday/New York Newsday** 1987-2007/Mar 27

[File 640] **San Francisco Chronicle** 1988-2007/Mar 25

[File 641] **Rocky Mountain News** Jun 1989-2007/Mar 26

[File 702] **Miami Herald** 1983-2007/Mar 18

[File 703] **USA Today** 1989-2007/Mar 26

[File 704] **(Portland)The Oregonian** 1989-2007/Mar 25

[File 713] **Atlanta J/Const.** 1989-2007/Mar 25

[File 714] **(Baltimore) The Sun** 1990-2007/Mar 23

[File 715] **Christian Sci.Mon.** 1989-2007/Mar 26

[File 725] **(Cleveland)Plain Dealer** Aug 1991-2007/Mar 26

[File 735] **St. Petersburg Times** 1989- 2007/Mar 25

[File 477] **Irish Times** 1999-2007/Mar 26

[File 710] **Times/Sun.Times(London)** Jun 1988-2007/Mar 27

[File 711] **Independent(London)** Sep 1988-2006/Dec 12
File 711: Use File 757 for full current day's news of the Independent, as as well as full coverage of many additional European news sources.

[File 756] **Daily/Sunday Telegraph** 2000-2007/Mar 27

[File 757] **Mirror Publications/Independent Newspapers** 2000-2007/Mar 27

[File 47] **Gale Group Magazine DB(TM)** 1959-2007/Mar 16

? s pd<20030627 and pd>19970627

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

>>>W: One or more prefixes are unsupported

   or undefined in one or more files.

S1   59501753   S PD<20030627 AND PD>19970627

? s server-centric or server-heavy or (server(2n)(centric heavy or fat))

Processing

             1   SERVER-CENTRIC

             0   SERVER-HEAVY

       2380445   SERVER

             0   CENTRIC HEAVY

       1064586   FAT

           940   SERVER(2N)(CENTRIC HEAVY OR FAT)

S2   941   S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

? s client-centric or client-heavy or (client(3n)(centric or heavy or fat))

Processing

             0   CLIENT-CENTRIC

             0   CLIENT-HEAVY

       3628784   CLIENT

```
        348585    CENTRIC

       4165026    HEAVY

       1064586    FAT

         13877    CLIENT(3N)((CENTRIC OR HEAVY) OR FAT)
S3       13877    S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))


?   s (reduce or reduces or reducing or reduction or reductions)(5n)(overhead)
Processing
Processing

       7202780    REDUCE

       1513965    REDUCES

       3511844    REDUCING

       4053657    REDUCTION

       1145957    REDUCTIONS

        841604    OVERHEAD
S4       93768    S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD)


?   s (minimize or minimizes or minimized or minimizing or minimal or minimally)
        941683    MINIMIZE

        209165    MINIMIZES

        269428    MINIMIZED

        401369    MINIMIZING

       1149030    MINIMAL

        148908    MINIMALLY
S5     2687449    S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)


?   S (REDUCE OR REDUCES OR REDUCING or reduced OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)
Processing
Processing

       7202780    REDUCE

       1513965    REDUCES

       3511844    REDUCING

       5855037    REDUCED
```

```
            4053657   REDUCTION

            1145957   REDUCTIONS

             841604   OVERHEAD

S6      112314    S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD)


?   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5n)(impact or traffic or communication or communications)

Processing

Processing

Processing

Processing

             941683   MINIMIZE

             209165   MINIMIZES

             269428   MINIMIZED

             401369   MINIMIZING

            1149030   MINIMAL

             148908   MINIMALLY

            7528408   IMPACT

            3970533   TRAFFIC

            5224275   COMMUNICATION

           14897598   COMMUNICATIONS

S7      151931    S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)


?   d s

Set      Items    Description

S1   59501753    S PD<20030627 AND PD>19970627

S2         941    S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

S3       13877    S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))

S4       93768    S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD)

S5     2687449    S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)

S6      112314    S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD)
```

S7   151931   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

? d s

Set   Items   Description

S1 59501753   S PD<20030627 AND PD>19970627

S2   941   S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

S3   13877   S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))

S4   93768   S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)

S5   2687449   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)

S6   112314   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)

S7   151931   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

? s s1 and (s2 or s3) and (s6 or s7)
    59501753   S1
         941   S2
       13877   S3
      112314   S6
      151931   S7
S8   157   S S1 AND (S2 OR S3) AND (S6 OR S7)

? s batch or batched or batching or batches
      556258   BATCH
        5445   BATCHED
       10810   BATCHING
      116888   BATCHES
S9   646220   S BATCH OR BATCHED OR BATCHING OR BATCHES

? s aggregate or aggregates or aggregated or aggregating
      995375   AGGREGATE
      161393   AGGREGATES
      130085   AGGREGATED

```
       93720   AGGREGATING
S10   1282404   S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING


?   s group or groups or grouping or grouped
Processing
Processing
Processing
Processing
Processing
Processing
Processing
Processing
Processing
      26374130   GROUP
       7463024   GROUPS
        213227   GROUPING
        218205   GROUPED
S11   30569274   S GROUP OR GROUPS OR GROUPING OR GROUPED


?   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(overhead or IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS or
congestion)
Processing
Processing
Processing
Processing
        941683   MINIMIZE
        209165   MINIMIZES
        269428   MINIMIZED
        401369   MINIMIZING
       1149030   MINIMAL
        148908   MINIMALLY
        841604   OVERHEAD
       7528408   IMPACT
       3970533   TRAFFIC
```

```
      5224275    COMMUNICATION

     14897598    COMMUNICATIONS

       429311    CONGESTION

S12      167696    S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR
CONGESTION)


?   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD
or impact or traffic or communication or communications or congestion)

Processing

Stop request submitted

>>>P:   Processing stopped


?   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD
OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION or bandwidth)

Processing

Processing

Processing

Processing

Processing

Processing

      7202780    REDUCE

      1513965    REDUCES

      3511844    REDUCING

      5855037    REDUCED

      4053657    REDUCTION

      1145957    REDUCTIONS

       841604    OVERHEAD

      7528408    IMPACT

      3970533    TRAFFIC

      5224275    COMMUNICATION

     14897598    COMMUNICATIONS

       429311    CONGESTION

      1008458    BANDWIDTH
```

S13   539783   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR
CONGESTION OR BANDWIDTH)

?   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR
CONGESTION or bandwidth)

Processing

Processing

Processing

       941683   MINIMIZE

       209165   MINIMIZES

       269428   MINIMIZED

       401369   MINIMIZING

      1149030   MINIMAL

       148908   MINIMALLY

       841604   OVERHEAD

      7528408   IMPACT

      3970533   TRAFFIC

      5224275   COMMUNICATION

     14897598   COMMUNICATIONS

       429311   CONGESTION

      1008458   BANDWIDTH

S14   176789   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR
CONGESTION OR BANDWIDTH)

?   d s

Set   Items   Description

S1   59501753   S PD<20030627 AND PD>19970627

S2   941   S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

S3   13877   S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))

S4   93768   S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD)

S5   2687449   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)

S6   112314   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD)

S7   151931   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

S8   157   S S1 AND (S2 OR S3) AND (S6 OR S7)

S9   646220   S BATCH OR BATCHED OR BATCHING OR BATCHES

S10   1282404   S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING

S11 30569274   S GROUP OR GROUPS OR GROUPING OR GROUPED

S12   167696   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

S13   539783   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S14   176789   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

? s s1 and (s2 or s3) and (s13 or s14)
      59501753   S1
           941   S2
         13877   S3
        539783   S13
        176789   S14
S15   313   S S1 AND (S2 OR S3) AND (S13 OR S14)

? s s15 and (s9 or s10 or s11)
           313   S15
        646220   S9
       1282404   S10
      30569274   S11
S16   219   S S15 AND (S9 OR S10 OR S11)

? s accumulate or accumulates or accumulated or accumulating or accumulation or accumulations
        240346   ACCUMULATE
         67793   ACCUMULATES
        862764   ACCUMULATED
        145088   ACCUMULATING

```
         366318    ACCUMULATION

          33624    ACCUMULATIONS

S17   1530956    S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR
ACCUMULATION OR ACCUMULATIONS


?  s s15 and (s9)

>>>W:  Operator "(9S)" in invalid position

>>>E:  There is no result


?  s s15 and s9

            313    S15

         646220    S9

S18         55    S S15 AND S9


?  rd

>>>W:  Duplicate detection is not supported for File 348.

Duplicate detection is not supported for File 349.

Duplicate detection is not supported for File 347.

Records from unsupported files will be retained in the RD set.

S19         54    RD   (UNIQUE ITEMS)


?  t s19/free/all

>>>W:  "FREE" is not a valid format name in file(s): 347-349
```

19/8/1 (Item 1 from file: 15)
ABI/Inform(R)

02414116   124683921
            USE FORMAT 7 OR 9 FOR FULL TEXT
Online cash management market...customer expectations, banks' challenges
  Word Count: 2118 Length: 4 Pages
May/Jun 2002
Geographic Names: United States; US

Descriptors: Bank services; Cash management services; Internet; Banking industry
Classification Codes: 8110 (CN=Commercial banking); 5250 (CN=Telecommunications systems & Internet communications); 3100 (CN=Capital & debt management); 9190 (CN=United States)
Print Media ID: 14887

19/8/2 (Item 2 from file: 15)
ABI/Inform(R)
02184121   74278124
USE FORMAT 7 OR 9 FOR FULL TEXT
App dread
  Word Count: 946 Length: 2 Pages
Jun 18, 2001
Geographic Names: United States; US

Descriptors: Technological planning; Systems integration; Enterprise resource planning; Project management
Classification Codes: 9190 (CN=United States); 5220 (CN=Information technology management); 5240
(CN=Software & systems)
Print Media ID: 15378

19/8/3 (Item 1 from file: 275)
Gale Group Computer DB(TM)

02192900   **Supplier Number: 20229290 (Use Format 7 Or 9 For** FULL TEXT)
Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)

Jan 19 , 1998
Word Count: 22365   Line Count: 01681

Special Features: chart; graph; illustration
Descriptors: Trade Show Report; Publishing Industry; Comdex-Fall
Product/Industry Names: 7372000 (Computer Software); 3573000 (Computers & Peripherals)
SIC Codes: 7372 Prepackaged software; 3571 Electronic computers
File Segment: CD File 275

19/8/4 (Item 1 from file: 16)
Gale Group PROMT(R)
10318240   **Supplier Number: 96454919 (USE FORMAT 7 FOR FULLTEXT)**

Insurance administration.
Jan 15 , 2003
Word Count: 20222
Publisher Name: CMP Media, Inc.
Descriptors: *Insurance industry--Products

Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *7372464 (Insurance Industry Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources)
SIC Codes: 7372 (Prepackaged software)
NAICS Codes: 51121 (Software Publishers)

19/8/5 (Item 2 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
09372568   Supplier Number: 82016417 **(USE FORMAT 7 FOR FULLTEXT)**

Claims administration. (Insurance Administration).(Buyers Guide)
Jan 15 , 2002
Word Count: 3501
Publisher Name: CMP Media, Inc.
Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *6322000 (Health Insurance); 7372466 (Medical Practice Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources)
SIC Codes: 6324 (Hospital and medical service plans); 7372 (Prepackaged software)
NAICS Codes: 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers)
Special Features: LOB

19/8/6 (Item 3 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
08970102   Supplier Number: 77876592 **(USE FORMAT 7 FOR FULLTEXT)**

Better Data Connectivity Not a Dream.(Brief Article)
Sept 3 , 2001
Word Count: 1111
Publisher Name: Cahners Business Information
Event Names: *600 (Market information - general)
Geographic Names: *1USA (United States)
Product Names: *4833000 (Television Broadcasting); 3662220 (Television Broadcasting Equipment)
Industry Names: ARTS (Arts and Entertainment); BUSN (Any type of business)
SIC Codes: 4833 (Television broadcasting stations); 3663 (Radio & TV communications equipment)
NAICS Codes: 51312 (Television Broadcasting); 33422 (Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing)
Special Features: LOB

19/8/7 (Item 4 from file: 16)
Gale Group PROMT(R)
08730560   **Supplier Number: 75636620 (USE FORMAT 7 FOR FULLTEXT)**

AppDREAD; Application developers can make life difficult for network pros, unless you set some ground rules.(Technology Information)
June 18 , 2001
Word Count: 968
Publisher Name: Network World, Inc.
Company Names: *PacifiCare Health Systems Inc.; PeopleSoft Inc.
Event Names: *310 (Science & research)
Geographic Names: *1USA (United States)
Product Names: *7372415 (Human Resources Management Software)
Industry Names: TELC (Telecommunications)
SIC Codes: 7372 (Prepackaged software)
NAICS Codes: 51121 (Software Publishers)
Ticker Symbols: PHSYA; PSFT
Special Features: COMPANY

19/8/8 (Item 5 from file: 16)
Gale Group PROMT(R)
05273202   **Supplier Number: 48033383 (USE FORMAT 7 FOR FULLTEXT)**

Unlock your potential
Oct 6 , 1997
Word Count: 6920
Publisher Name: InfoWorld Publishing Company
Company Names: *Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.
Event Names: *330 (Product information); 600 (Market information - general)
Geographic Names: *1USA (United States)
Product Names: *7372502 (Operating Systems); 3573200 (Computer Peripherals); 3573125 (Information Appliances); 3573102 (Servers (Computers))
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers); 33411 (Computer and Peripheral Equipment Manufacturing); 334111 (Electronic Computer Manufacturing)
Ticker Symbols: AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS
Special Features: COMPANY

19/8/9 (Item 1 from file: 148)
Gale Group Trade & Industry DB

10862455   Supplier Number: 53976437 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Pipe Dreams Jeffrey.(corporations update their communications networks)

March , 1999
Word Count: 3901   **Line Count:** 00321
Industry Codes/Names: BANK Banking, Finance and Accounting; BUSN Any type of business
Descriptors: Enterprise networks--Management; Wide area networks--Equipment and supplies ;
Telecommunications equipment industry--Products
Geographic Codes: 1USA United States
Product/Industry Names: 3661269 (LAN/WAN Equipment NEC)
Product/Industry Names: 3661 Telephone and telegraph apparatus
NAICS Codes: 33421 Telephone Apparatus Manufacturing
File Segment: TI File 148

19/8/10 (Item 2 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
09776432   Supplier Number: 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's
WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and
cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero
Administration Kit for Windows NT) (Software Review)(Evaluation)**

Oct 6 , 1997
Word Count: 7215   **Line Count:** 00588

Special Features: table; illustration
Company Names: Citrix Systems Inc.--Products; Microsoft Corp.--Products; Novell Inc.-- Products
Industry Codes/Names: BUSN Any type of business; CMPT Computers and Office Automation
Descriptors: Network software--Evaluation; Network management software--Evaluation; Network operating
systems--Evaluation
Product/Industry Names: 7372611 (Network Management Software); 7372620 (Network Software); 7372610
(Network Operating Systems & Utilities)
Product/Industry Names: 7372 Prepackaged software
Ticker Symbols: CTXS; MSFT; NOVL
Trade Names: WinFrame 1.7 (Network software)--Evaluation; Microsoft Systems Management Server 1.2
(Network management software)--Evaluation; IntranetWare 4.11 (Network operating system)--Evaluation
File Segment: CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

?   t s19/k/6

19/K/6 (Item 3 from file: 16)
Gale Group PROMT(R)

...clearly be limited by the need to share the same old data
infrastructure. Whether the **client** is **fat,** or the
server is **fat,** the pipe between them remains decidedly
skinny.
       Application developers and original equipment manufacturers have
done...

...systems. In that capacity, control of the OOB channel has been very well
adapted to **batch**-based data transmissions driven by a single source.
But it is not easily extended to...

...data-connectivity services that simplify data transmission by providing
a standardized platform for data transfer.
       * **Reduced congestion** and contention enabling multiple
applications to share .the OOB pipe.
       By examining and managing the...

20010903

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))
S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))
S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)
S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)
S6	112314	S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)
S7	151931	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)
S8	157	S S1 AND (S2 OR S3) AND (S6 OR S7)
S9	646220	S BATCH OR BATCHED OR BATCHING OR BATCHES
S10	1282404	S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING
S11	30569274	S GROUP OR GROUPS OR GROUPING OR GROUPED
S12	167696	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

S13   539783   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S14   176789   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S15   313   S S1 AND (S2 OR S3) AND (S13 OR S14)

S16   219   S S15 AND (S9 OR S10 OR S11)

S17   1530956   S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR ACCUMULATION OR ACCUMULATIONS

S18   55   S S15 AND S9

S19   54   RD (unique items)

? s transaction or transactions or transaction-based or (transaction(w)based) or transact or transacted or transacting

Processing

Processing

Processing

Processing

Processing

     3602978   TRANSACTION

     2750065   TRANSACTIONS

          3   TRANSACTION-BASED

     3602978   TRANSACTION

    32065084   BASED

      40963   TRANSACTION(W)BASED

      71790   TRANSACT

      43934   TRANSACTED

      24903   TRANSACTING

S20   5595240   S TRANSACTION OR TRANSACTIONS OR TRANSACTION-BASED OR (TRANSACTION(W)BASED) OR TRANSACT OR TRANSACTED OR TRANSACTING

? s s18 and s20

       55   S18

    5595240   S20

S21   45   S S18 AND S20

? t s21/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

21/8/1 (Item 1 from file: 15)
ABI/Inform(R)
02414116   124683921
USE FORMAT 7 OR 9 FOR FULL TEXT
Online cash management market...customer expectations, banks' challenges
  Word Count: 2118 **Length:** 4 Pages
May/Jun 2002
Geographic Names: United States; US

Descriptors: Bank services; Cash management services; Internet; Banking industry
Classification Codes: 8110 (CN=Commercial banking); 5250 (CN=Telecommunications systems & Internet communications); 3100 (CN=Capital & debt management); 9190 (CN=United States)
Print Media ID: 14887

21/8/2 (Item 1 from file: 275)
Gale Group Computer DB(TM)
02192900   **Supplier Number: 20229290 (Use Format 7 Or 9 For** FULL TEXT **)**
Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)

Jan 19 , 1998
Word Count: 22365   **Line Count:** 01681

Special Features: chart; graph; illustration
Descriptors: Trade Show Report; Publishing Industry; Comdex-Fall
Product/Industry Names: 7372000 (Computer Software); 3573000 (Computers & Peripherals)
SIC Codes: 7372 Prepackaged software; 3571 Electronic computers
File Segment: CD File 275

21/8/3 (Item 1 from file: 16)
Gale Group PROMT(R)
10318240   **Supplier Number: 96454919 (USE FORMAT 7 FOR FULLTEXT)**

Insurance administration.
Jan 15 , 2003
Word Count: 20222
Publisher Name: CMP Media, Inc.
Descriptors: *Insurance industry--Products

Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *7372464 (Insurance Industry Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources)
SIC Codes: 7372 (Prepackaged software)
NAICS Codes: 51121 (Software Publishers)

21/8/4 (Item 2 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
09372568   **Supplier Number: 82016417 (USE FORMAT 7 FOR FULLTEXT)**

Claims administration. (Insurance Administration).(Buyers Guide)
Jan 15 , 2002
Word Count: 3501
Publisher Name: CMP Media, Inc.
Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *6322000 (Health Insurance); 7372466 (Medical Practice Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources)
SIC Codes: 6324 (Hospital and medical service plans); 7372 (Prepackaged software)
NAICS Codes: 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers)
Special Features: LOB

21/8/5 (Item 3 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
05273202   **Supplier Number: 48033383 (USE FORMAT 7 FOR FULLTEXT)**

Unlock your potential
Oct 6 , 1997
Word Count: 6920
Publisher Name: InfoWorld Publishing Company
Company Names: *Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.
Event Names: *330 (Product information); 600 (Market information - general)
Geographic Names: *1USA (United States)
Product Names: *7372502 (Operating Systems); 3573200 (Computer Peripherals); 3573125 (Information Appliances); 3573102 (Servers (Computers))
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers); 33411 (Computer and Peripheral Equipment Manufacturing); 334111 (Electronic Computer Manufacturing)
Ticker Symbols: AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS

Special Features: COMPANY

21/8/6 (Item 1 from file: 148)
Gale Group Trade & Industry DB
10862455   **Supplier Number:** 53976437 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Pipe Dreams Jeffrey.(corporations update their communications networks)

March , 1999
Word Count: 3901   **Line Count:** 00321
Industry Codes/Names: BANK Banking, Finance and Accounting; BUSN Any type of business
Descriptors: Enterprise networks--Management; Wide area networks--Equipment and supplies ;
Telecommunications equipment industry--Products
Geographic Codes: 1USA United States
Product/Industry Names: 3661269 (LAN/WAN Equipment NEC)
Product/Industry Names: 3661 Telephone and telegraph apparatus
NAICS Codes: 33421 Telephone Apparatus Manufacturing
File Segment: TI File 148

21/8/7 (Item 2 from file: 148)
Gale Group Trade & Industry DB
09776432   **Supplier Number:** 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero Administration Kit for Windows NT) (Software Review)(Evaluation)

Oct 6 , 1997
Word Count: 7215   **Line Count:** 00588

Special Features: table; illustration
Company Names: Citrix Systems Inc.--Products; Microsoft Corp.--Products; Novell Inc.-- Products
Industry Codes/Names: BUSN Any type of business; CMPT Computers and Office Automation
Descriptors: Network software--Evaluation; Network management software--Evaluation; Network operating systems--Evaluation
Product/Industry Names: 7372611 (Network Management Software); 7372620 (Network Software); 7372610 (Network Operating Systems & Utilities)
Product/Industry Names: 7372 Prepackaged software
Ticker Symbols: CTXS; MSFT; NOVL
Trade Names: WinFrame 1.7 (Network software)--Evaluation; Microsoft Systems Management Server 1.2 (Network management software)--Evaluation; IntranetWare 4.11 (Network operating system)--Evaluation
File Segment: CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

? t s21/k/3

21/K/3 (Item 1 from file: 16)
Gale Group PROMT(R)

...maintain data, make payments at the appropriate times, generate
accounting, keep records on all the **transactions** and provide
extracts and reports to help manage the book of business. Pays life, fixed
...

...services. Relius Administration, 401(k) administration/recordkeeping
software handles balance-forward and daily-valued plans, **transaction**
processing, compliance testing, mutual fund trading and offers
straight-through processing capabilities, as well as...

...by: Reducing the time and expense of generating and processing new and
renewal business. Trimming **transaction** costs. Facilitating entirely
new distribution and marketing opportunities.
     AMS Services Inc.
     3 Waterside Crossing
     Windsor...InsuranceIsland is an Internet-based product for independent
agents and carriers enabling end-to-end **transactions** between them.
InsuranceIsland is the only enterprise that offers an agent management
system that integrates...

...service portal and business development tool. Our function-specific
templates and components provide real-time **transaction** and inquiry
capabilities via the Web, helping your producers to win more business,
improve productivity...end portal and back office life administration
system. The portal allows for data exchange and **transactions** for
agents, customers and the home office. The back-office administration
system provides processing for...

...maintain data, make payments at the appropriate times, generate
accounting, keep records on all the **transactions** and provide
extracts and reports to help manage the book of business. Pays life, fixed
...

...suite of components designed specifically for the insurance industry;
AcroDocs, the client view; AcroCapture for **batch** scan/index
processes; AcroFlow, rules based workflow engine; AcroStore, repository
component; Internet enabled. AcroDocs' is...

...800-983-8114 Fax: 314/968-9589 info@genelco.com
     Genelco Claims+

Internet-accessible, HIPAA **transaction**-enabled
adjudication/administration for various health plans and coverage types.
Accommodates **batch** EDI claims adjudication; Internet-enabled
inquiries, reports, form management and ...end portal and back office life
administration system. The portal allows for data exchange and
transactions for agents, customers and the home office. The
back-office administration system provides processing for...

...Claims+ for payments and claims.
        Available as an ASP Model
        Genelco Claims+
        Internet-accessible, HIPAA **transaction**-enabled
adjudication/administration for various health plans and coverage types.
Accommodates **batch** EDI claims adjudication; Internet-enabled
inquiries, reports, form management and updates; and disability processing
(tax...800-983-8114 Fax: 314/968-9589 info@genelco.com
        Genelco Claims+
        Internet-accessible, HIPAA **transaction**-enabled
adjudication/administration for various health plans and coverage types.
Accommodates **batch** EDI claims adjudication; Internet-enabled
inquiries, reports, form management and updates; and disability processing
(tax...

...data management solution. This application provides instant, secure
access to your membership, eligibility and claims **transactions** 24
hours a day via the Internet. Antares secures your data and downloads it
daily...IOCR (using OPTIFACTS), or via mailroom data entry (using FACTS
PRE-PROCESSING), and creates a **batch** for automatic adjudication. The
process is automated by FACTS CODER (bundled with AUTOFACTS) which provides
...
...This system provides your organization with an effective mailroom data
entry solution which helps you **reduce** the administrative
overhead and costs normally associated with the claims entry

process.
        Available as an ASP Model
        FACTS...

...800-983-8114 Fax: 314/968-9589 info@genelco.com
        Genelco Claims+
        Internet-accessible, HIPAA **transaction**-enabled
adjudication/administration for various health plans and coverage types.
Accommodates **batch** EDI claims adjudication; Internet-enabled
inquiries, reports, form management and updates; and disability processing
(tax...

...maintain data, make payments at the appropriate times, generate
accounting, keep records on all the **transactions** and provide
extracts and reports to help manage the book of business. Pays life, fixed
...

...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for ...rule automation and management software, drives and executes complex business processes involving large volumes of **transactions** and empowers business users with a `point & click' interface and other tools to manage rules...800-983-8114 Fax: 314/968-9589 info@genelco.com

      Genelco Claims+

      Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and updates; and disability processing (tax...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for...

...rating, underwriting, enrollment, premium posting, collections, renewals, full agent commission calculations correspondence, and financial accounting **transactions**. Available as an ASP Model

      Confluence Insurance Solutions

      527 N. Meadowcroft Ave.

      Pittsburgh, PA 15216...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for for insurance carriers and built on the Microsoft platform running Microsoft **Transaction** Server and SQL 7.0. Diamond can be deployed using a thin footprint VB client...

...PolicyFocus, insurers can unify contract administration for all P&C lines. PolicyFocus encompasses all key **transactions** such as issuance, changes, renewals, cancellations/reinstatements and endorsements, including out-of-sequence endorsements. In...

800-983-8114 Fax: 314/968-9589 info@genelco.com

      Genelco, Claims+

      Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and updates; and disability processing (tax...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for...

...that goes with it. Our full-service policy administration includes mail/print, customer service, policy **transaction,** billing/accounting and reporting. Available as an ASP Model

      INSTEC

      1811 Centre Point Circle Ste...

...for carriers and MGA's that supports rating, full policy issuance, all policy life cycle **transactions,** and policy history. Countrywide bureau and client-specific filings for Auto/Garage, Businessowners,

Contractors, CPP...

...is integrated with the policy processing environment to perform new
business, endorsements, out-of-sequence **transactions**, renewal,
cancellations, premium audits, and reinstatements. Available as an ASP
Model

    InSystems Technologies, Inc.
    19...Policy inSIGHT streamlines policy processing using a modular,
open architecture that unifies disparate systems, provides **client-
centric** views and improves business user productivity. Policy
inSIGHT is built on the WebSphere platform and...system that provides ease
of operations to the business user to decrease the time of
transaction and provide better return on investment (ROI).
    TCi Consulting & Research
    11 Oak St., Ste. 400...

...payments daily, AQURIT will post to accounts receivable, encode/endorse
checks, create deposits, and image **transactions** for print, CD and
internet distribution.
    Genelco Software Solutions
    RBC Liberty Insurance
    9735 Landmark Parkway...Policy inSIGHT streamlines policy processing
using a modular, open architecture that unifies disparate systems, provides
client-centric views and improves business user productivity.
Policy inSIGHT is built on the WebSphere platform and...end portal and back
office life administration system. The portal allows for data exchange and
transactions for agents, customers and the home office. The
back-office administration system provides processing for...Policy inSIGHT
streamlines policy processing using a modular, open architecture that
unifies disparate systems, provides **client-centric** views and
improves business user productivity. Policy inSIGHT is built on the
WebSphere platform and...

...bsinger@checkfree.com
    CheckFree RECON Securities
    RECON Securities is an industry-leading solution for automating
transaction matching and position reconciliation for both securities
and cash **transactions**. RECON Securities streamlines operations and
allows organizations to achieve STP by automatically sifting through large
volumes of **transactions**, often using different types of security
identifiers, to find true matches quickly and accurately. The...

...suite of software modules installed on the client's hardware,
interfacing legacy systems for scheduled **batch** processing and

enterprise-wide automated mutual fund processing control and efficiency for
cost and risk...Policy inSIGHT streamlines policy processing using a
modular, open architecture that unifies disparate systems, provides
client-centric views and improves business user productivity.
Policy inSIGHT is built on the WebSphere platform and...

...agois.com
       AGO Workers Compensation System
       Workers' compensation system features rating, complete policy
assembly and

transaction processing including audits, integrated
modules for Bureau and statistical reporting.
       EDS
       5400 Legacy Dr. A3...Provides carriers/MGA's with comprehensive
Commercial Lines rating, policy issuance, all policy life cycle
transactions, and full policy history. Workers' Compensation and
Employers Liability for all 50 States plus DC...

...Policy inSIGHT streamlines policy processing using a modular, open
architecture that unifies disparate systems, provides **client-
centric** views and improves business user productivity. Policy
inSIGHT is built on the WebSphere platform and...

20030115

? t s21/k/5

21/K/5 (Item 3 from file: 16)
Gale Group PROMT(R)

...to log in.
       However, this Comparison does not attempt to measure the merits of
thin-**client** computing vs. **fat-client** computing.
Rather, the goal was to find ways to lower the cost of PCs in...1.2
       The capability to duplicate objects made setting up users and
applications straightforward and **reduced** the **overhead** for the
policy structure and applications repository. We were very impressed with
the depth of...we used the NT Server Resource Kit to execute some, but not
all, changes in **batch** mode.
       Side by side by side
       There are two ways for a vendor to construct...companies leverage
their older workstations. The client environment is uniform and consistent
at all stations, **reducing** administrative **overhead**. Of course,
bear in mind that this model requires a great deal of bandwidth because...

...after installation. Interfaces to maintain users and jobs weren't
flexible to scaling to large **batch** tasks. The architecture was ad
hoc even though the software was rich in administrative tools...own path to
interoperability.
       Currently, there are other models that view client/server interaction

as **transactions** and messages at a higher level, such as Microsoft's
Component Object Model (COM), whereas...

19971006

? s message or messages or messaging

Processing

Processing

   3444294 MESSAGE

   1396256 MESSAGES

    825547 MESSAGING

S22 4893844 S MESSAGE OR MESSAGES OR MESSAGING

? d ss

>>>E: Set s does not exist

? d s

Set   Items Description

S1 59501753 S PD<20030627 AND PD>19970627

S2   941 S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

S3   13877 S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))

S4   93768 S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)

S5 2687449 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)

S6 112314 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)

S7 151931 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

S8   157 S S1 AND (S2 OR S3) AND (S6 OR S7)

S9 646220 S BATCH OR BATCHED OR BATCHING OR BATCHES

S10 1282404 S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING

S11 30569274 S GROUP OR GROUPS OR GROUPING OR GROUPED

S12 167696 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

S13   539783   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S14   176789   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S15   313   S S1 AND (S2 OR S3) AND (S13 OR S14)

S16   219   S S15 AND (S9 OR S10 OR S11)

S17   1530956   S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR ACCUMULATION OR ACCUMULATIONS

S18   55   S S15 AND S9

S19   54   RD   (unique items)

S20   5595240   S TRANSACTION OR TRANSACTIONS OR TRANSACTION-BASED OR (TRANSACTION(W)BASED) OR TRANSACT OR TRANSACTED OR TRANSACTING

S21   45   S S18 AND S20

S22   4893844   S MESSAGE OR MESSAGES OR MESSAGING

? s s21 and s22

        45   S21

    4893844   S22

S23   41   S S21 AND S22

? t s41/free/all

>>>E: Set 41 does not exist

? t s23/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

23/8/1 (Item 1 from file: 275)
Gale Group Computer DB(TM)
(c) 2007 The Gale Group. All rights reserved.
02192900   **Supplier Number: 20229290 (Use Format 7 Or 9 For** FULL TEXT)
Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)

Jan 19 , 1998
Word Count: 22365   Line Count: 01681

Special Features: chart; graph; illustration
Descriptors: Trade Show Report; Publishing Industry; Comdex-Fall
Product/Industry Names: 7372000 (Computer Software); 3573000 (Computers & Peripherals)

SIC Codes: 7372 Prepackaged software; 3571 Electronic computers
File Segment: CD File 275

23/8/2 (Item 1 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
09372568   Supplier Number: 82016417 **(USE FORMAT 7 FOR FULLTEXT)**

Claims administration. (Insurance Administration).(Buyers Guide)
Jan 15 , 2002
Word Count: 3501
Publisher Name: CMP Media, Inc.
Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *6322000 (Health Insurance); 7372466 (Medical Practice Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources)
SIC Codes: 6324 (Hospital and medical service plans); 7372 (Prepackaged software)
NAICS Codes: 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers)
Special Features: LOB

23/8/3 (Item 2 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
05273202   Supplier Number: 48033383 **(USE FORMAT 7 FOR FULLTEXT)**

Unlock your potential
Oct 6 , 1997
Word Count: 6920
Publisher Name: InfoWorld Publishing Company
Company Names: *Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.
Event Names: *330 (Product information); 600 (Market information - general)
Geographic Names: *1USA (United States)
Product Names: *7372502 (Operating Systems); 3573200 (Computer Peripherals); 3573125 (Information Appliances); 3573102 (Servers (Computers))
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers); 33411 (Computer and Peripheral Equipment Manufacturing); 334111 (Electronic Computer Manufacturing)
Ticker Symbols: AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS
Special Features: COMPANY

23/8/4 (Item 1 from file: 148)
Gale Group Trade & Industry DB

09776432   Supplier Number: 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero Administration Kit for Windows NT) (Software Review)(Evaluation)

Oct 6 , 1997
Word Count: 7215   Line Count: 00588

Special Features: table; illustration
Company Names: Citrix Systems Inc.--Products; Microsoft Corp.--Products; Novell Inc.-- Products
Industry Codes/Names: BUSN Any type of business; CMPT Computers and Office Automation
Descriptors: Network software--Evaluation; Network management software--Evaluation; Network operating systems--Evaluation
Product/Industry Names: 7372611 (Network Management Software); 7372620 (Network Software); 7372610 (Network Operating Systems & Utilities)
Product/Industry Names: 7372 Prepackaged software
Ticker Symbols: CTXS; MSFT; NOVL
Trade Names: WinFrame 1.7 (Network software)--Evaluation; Microsoft Systems Management Server 1.2 (Network management software)--Evaluation; IntranetWare 4.11 (Network operating system)--Evaluation
File Segment: CD File 275


```
>>>W:   "FREE" is not a valid format name in file(s): 347-349


?   s s18 and s22

            55    S18

       4893844    S22

S24        46    S S18 AND S22


?   t s24/free/all

>>>W:   "FREE" is not a valid format name in file(s): 347-349
```

24/8/1 (Item 1 from file: 15)
ABI/Inform(R)
02184121   74278124
            USE FORMAT 7 OR 9 FOR FULL TEXT
App dread
  Word Count: 946 Length: 2 Pages
Jun 18, 2001
Geographic Names: United States; US

Descriptors: Technological planning; Systems integration; Enterprise resource planning; Project management

Classification Codes: 9190 (CN=United States); 5220 (CN=Information technology management); 5240 (CN=Software & systems)
Print Media ID: 15378

24/8/2 (Item 1 from file: 275)
Gale Group Computer DB(TM)
02192900   Supplier Number: 20229290 **(Use Format 7 Or 9 For** FULL TEXT)
Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)

Jan 19 , 1998
Word Count: 22365   **Line Count:** 01681

Special Features: chart; graph; illustration
Descriptors: Trade Show Report; Publishing Industry; Comdex-Fall
Product/Industry Names: 7372000 (Computer Software); 3573000 (Computers & Peripherals)
SIC Codes: 7372 Prepackaged software; 3571 Electronic computers
File Segment: CD File 275

24/8/3 (Item 1 from file: 16)
Gale Group PROMT(R)
09372568   Supplier Number: 82016417 **(USE FORMAT 7 FOR FULLTEXT)**

Claims administration. (Insurance Administration).(Buyers Guide)
Jan 15 , 2002
Word Count: 3501
Publisher Name: CMP Media, Inc.
Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *6322000 (Health Insurance); 7372466 (Medical Practice Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources)
SIC Codes: 6324 (Hospital and medical service plans); 7372 (Prepackaged software)
NAICS Codes: 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers)
Special Features: LOB

24/8/4 (Item 2 from file: 16)
Gale Group PROMT(R)
08730560   Supplier Number: 75636620 **(USE FORMAT 7 FOR FULLTEXT)**

AppDREAD; Application developers can make life difficult for network pros, unless you set some ground rules.(Technology Information)
June 18 , 2001
Word Count: 968
Publisher Name: Network World, Inc.
Company Names: *PacifiCare Health Systems Inc.; PeopleSoft Inc.
Event Names: *310 (Science & research)
Geographic Names: *1USA (United States)
Product Names: *7372415 (Human Resources Management Software)
Industry Names: TELC (Telecommunications)
SIC Codes: 7372 (Prepackaged software)
NAICS Codes: 51121 (Software Publishers)
Ticker Symbols: PHSYA; PSFT
Special Features: COMPANY

24/8/5 (Item 3 from file: 16)
Gale Group PROMT(R)
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05273202   **Supplier Number: 48033383 (USE FORMAT 7 FOR FULLTEXT)**

Unlock your potential
Oct 6 , 1997
Word Count: 6920
Publisher Name: InfoWorld Publishing Company
Company Names: *Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.
Event Names: *330 (Product information); 600 (Market information - general)
Geographic Names: *1USA (United States)
Product Names: *7372502 (Operating Systems); 3573200 (Computer Peripherals); 3573125 (Information Appliances); 3573102 (Servers (Computers))
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers); 33411 (Computer and Peripheral Equipment Manufacturing); 334111 (Electronic Computer Manufacturing)
Ticker Symbols: AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS
Special Features: COMPANY

24/8/6 (Item 1 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
09776432   **Supplier Number: 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT)**
Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero Administration Kit for Windows NT) (Software Review)(Evaluation)

Oct 6 , 1997
Word Count: 7215   **Line Count:** 00588

Special Features: table; illustration
Company Names: Citrix Systems Inc.--Products; Microsoft Corp.--Products; Novell Inc.-- Products
Industry Codes/Names: BUSN Any type of business; CMPT Computers and Office Automation
Descriptors: Network software--Evaluation; Network management software--Evaluation; Network operating systems--Evaluation
Product/Industry Names: 7372611 (Network Management Software); 7372620 (Network Software); 7372610 (Network Operating Systems & Utilities)
Product/Industry Names: 7372 Prepackaged software
Ticker Symbols: CTXS; MSFT; NOVL
Trade Names: WinFrame 1.7 (Network software)--Evaluation; Microsoft Systems Management Server 1.2 (Network management software)--Evaluation; IntranetWare 4.11 (Network operating system)--Evaluation
File Segment: CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

? t s24/k/4

24/K/4 (Item 2 from file: 16)
Gale Group PROMT(R)

...problem. Testing application performance, running optimized database queries and integrating applications with authentication systems greatly **reduces** the network **impact** of a **fat client.**
       The infrastructure in many offices just isn't made to handle a data-intensive network...

...100 lines of code can be condensed into 10 lines for displaying data in one **batch.**
       Another practice for minimizing the network load involves storing data in one Oracle table rather...

...developers wrote the application so its audit logs recognize specific activity thresholds and send event **messages** to a central monitoring application when triggered, rather than requiring administrators to check every application...

20010618

AppDREAD; Application developers can make life difficult for network pros, unless you set some ground rules.(Technology Information)
Gaspar, Suzanne
Network World , p 51
June 18 , 2001

Text:

The request from the human resources department tossed PacifiCare's
IT staff deep into a project they knew little about. HR had secured
approval from upper management to buy a PeopleSoft enterprise resource
planning application, and now they needed IT to deploy it.

   Jeffrey Ballard, regional manager of IT for the HMO in Cypress, Calif.,
says his group knew little about the application. Poor communication
between the IT department and those who had authorized the project, along
with a failure to test the application on the network, made for a difficult
deployment. "When we did install, we ran into just about every problem," he
says.
        The application didn't run well with other software on the desktops.
The client machines weren't up to speed. The server was sized for 40
clients, not the 500 users who eventually surfaced. The 10M bit/sec network
connection provided poor access. "The equipment at the local office was
very old and slow, and never made to shovel that much data around," Ballard
says.
        Rolling out complex applications like PeopleSoft typically requires
software and hardware upgrades. IT executives say the best solution is for
application developers to write code capable of running at slower
connection speeds.
        But short of that, there are still some steps you can take to
alleviate the problem. Testing application performance, running optimized
database queries and integrating applications with authentication systems
greatly **reduces** the network **impact** of a **fat
client.**
        The infrastructure in many offices just isn't made to handle a
data-intensive network load, Ballard says. Most applications work fine when
you test them on the LAN but performance begins to suffer when you put them
on the WAN.
        Ballard recommends testing to the lowest common denominator. Deploy
the application to 10 offices, look at all the connections, and test using
the worst connection. If the application works with that connection, it

will work with the rest of them, he says.

PacifiCare's IT department now uses a consistent approach to rolling out new applications to make sure there's sufficient bandwidth. IT evaluates the connections to desktops, servers and remote office gear, and handles everything from installation through deployment and support so as to build skills with each application.

Randall Oehrle, network administrator for the city of Overland Park, Kan., survived a PeopleSoft installation in 1999 and is gearing up to deploy JD Edwards' OneWorld ERP application.

While the native PeopleSoft client is almost unusable across his network's T-1 WAN links, the 1.6G-byte OneWorld client will be a bandwidth hog even on the LAN. "Nobody takes the time to optimize code anymore, assuming everybody's got fiber-optic cable and unlimited bandwidth," he says.

IT would like to upgrade the city's 100M bit/sec Ethernet backbone to Gigabit Ethernet, but the funding is not available.

"Users will feel their Word is running slow, their directories just don't pop up anymore or their print job is taking longer than usual," Oehrle says in describing the complaints he expects to hear after the JD Edwards rollout takes place.

However, performance may not be bad for those who access the ERP application over the WAN. Oehrle plans to equip remote users with a browser-based client, which should reduce the network load by minimizing data transfer. The browser-based client includes extensive Java libraries that he wants to install on the clients rather than have users access them on the server over the WAN.

Oehrle is also hoping the JD Edwards developers have optimized the application's code to run fast against the Oracle database. For example, 100 lines of code can be condensed into 10 lines for displaying data in one **batch**.

Another practice for minimizing the network load involves storing data in one Oracle table rather than replicating the same data in several tables for multiple access.

Oehrle also recommends running an Oracle optimization routine against your database to find the fastest way to get the data you want. This process also flags redundant SQL statements. The fewer SQL statements the database has to cache, the faster the application performs.

Chris Resch, CTO for document equipment provider OfficeWare in Cincinnati, says developers can improve application performance through benchmark testing.

He says they should use performance-monitoring tools to get a baseline, then zero in on specific aspects of the application they can improve.

At the very least, Resch says, applications should integrate with standard performance-monitoring tools.

For example, Microsoft's Windows NT tools provide access to reports that can pinpoint a problem with the local server or a communication issue with the client.

He says it would be useful if developers wrote the application so its audit logs recognize specific activity thresholds and send event **messages** to a central monitoring application when triggered, rather than requiring administrators to check every application's log file.

Moreover, Resch suggests tying the new application into your existing authentication database to ease manageability. Ideally, developers should write applications to support systems for assigning permissions and authenticating users.

"If you have multiple applications and each one has its own way of setting security, it's difficult to go to all those separate applications to make changes," he says.

Applications that take advantage of Microsoft's Active Directory, NT domain or Novell Directory Services would let administrators use groups and structures already in place.

Advice about bandwidth conservation is rampant.

"It's in everybody's best interest to communicate," Ballard says

"I don't want phone calls from my boss because somebody's complaining of slow response. No one wants an application that's not going to be successful," he adds.

? s client-in-charge or client(2w)charge

Processing

```
            0    CLIENT-IN-CHARGE
      3628784    .CLIENT
      6659645    CHARGE
         1137    CLIENT(2W)CHARGE
S25      1137    S CLIENT-IN-CHARGE OR CLIENT(2W)CHARGE
```

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))
S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))
S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)
S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)

S6   112314   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD)

S7   151931   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

S8   157   S S1 AND (S2 OR S3) AND (S6 OR S7)

S9   646220   S BATCH OR BATCHED OR BATCHING OR BATCHES

S10   1282404   S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING

S11   30569274   S GROUP OR GROUPS OR GROUPING OR GROUPED

S12   167696   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR
CONGESTION)

S13   539783   S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR
REDUCTIONS)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR
CONGESTION OR BANDWIDTH)

S14   176789   S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR
MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR
CONGESTION OR BANDWIDTH)

S15   313   S S1 AND (S2 OR S3) AND (S13 OR S14)

S16   219   S S15 AND (S9 OR S10 OR S11)

S17   1530956   S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR
ACCUMULATION OR ACCUMULATIONS

S18   55   S S15 AND S9

S19   54   RD (unique items)

S20   5595240   S TRANSACTION OR TRANSACTIONS OR TRANSACTION-BASED OR
(TRANSACTION(W)BASED) OR TRANSACT OR TRANSACTED OR TRANSACTING

S21   45   S S18 AND S20

S22   4893844   S MESSAGE OR MESSAGES OR MESSAGING

S23   41   S S21 AND S22

S24   46   S S18 AND S22

S25   1137   S CLIENT-IN-CHARGE OR CLIENT(2W)CHARGE

? s s1 or (s2 or s3) and s25

>>>W: Disk space full

Workspace is full

>>>E: There is no result

?

Totals										
Session Totals	26.2680	$83.48		Telecom	$22.54					$114.05

Ended session: 3/27/07 3:15:25 PM

? Logon

*** It is now 3/27/07 3:18:48 PM ***

Welcome to DialogLink - Version 5
Revolutionize the Way You Work!

New on Dialog
Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*® (*DWPI*SM) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new DWPI enhancements and report templates at http://www.dialog.com/dwpi.

DialogLink 5 Release Notes
New features available in the latest release of DialogLink 5 (November 2005)

• Ability to resize images for easier incorporation into DialogLink Reports

• New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)

• Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database

• Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Off Line

* * *

Connecting to Rob Pond - Dialog - 264751

Connected to Dialog via SMS00318

? d s

>>>I: No sets currently exist

? Please enter a command or be logged off in 5 minutes

? Logoff

Estimated Cost Summary

Project		Client		Charge Code		Searcher		Job		Service Code	User Number
						Rob Pond				51	264751
Date		Time		SessionID		Subsession		Subaccount			
03/27/2007		14:49:10		43		2					
Data Base	Dial Units	Access Charge	Print Credit	Types	Prints	Report	Rank	Links	CSS	Total	
415	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sub Totals	0.0000	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Session Totals	0.2400	$0.00		**Telecom**	$2.77					$2.77	

Ended session: 3/27/07 3:49:12 PM

?

*** It is now 4/29/07 12:17:23 AM ***

Welcome to DialogLink - Version 5
Revolutionize the Way You Work!

New on Dialog
Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*® (*DWPI*SM) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

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- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database

- Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Log On Msg
*** ANNOUNCEMENTS ***
* * *

NEW FILES RELEASED

***BIOSIS Previews Archive (File 552)

***BIOSIS Previews 1969-2007 (File 525)

***Engineering Index Backfile (File 988)

***Trademarkscan - South Korea (File 655)

RESUMED UPDATING

***File 141, Reader's Guide Abstracts

                    ***

RELOADS COMPLETED

***File 5, BIOSIS Previews - archival data added

***Files 340, 341 & 942, CLAIMS/U.S. Patents - 2006 reload now online

                    ***

DATABASES REMOVED

Chemical Structure Searching now available in Prous Science Drug

Data Report (F452), Prous Science Drugs of the Future (F453),

IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein

Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus

(File 302).

                    ***

>>>For the latest news about Dialog products, services, content<<<

>>>and events, please visit What's New from Dialog at <<<

>>>http://www.dialog.com/whatsnew/. You can find news about<<<

>>>a specific database by entering HELP NEWS <file number>.<<<

? Help Off Line

* * *

Connecting to Rob Pond -`Dialog - 264751

Connected to Dialog via SMS00304

? B 15, 9, 610, 810, 275, 476, 624, 621, 636, 613, 813, 16, 160, 634, 148, 20, 35, 583,
65, 2, 474, 475, 99, 256, 348, 349, 347, 635, 570, PAPERSMJ, PAPERSEU, 47

[File 15] **ABI/Inform(R)** 1971-2007/Apr 28

[File 9] **Business & Industry(R)** Jul/1994-2007/Apr 27

[File 610] **Business Wire** 1999-2007/Apr 27
File 610: File 610 now contains data from 3/99 forward. Archive data (1986-2/99) is available in File 810.

[File 810] **Business Wire** 1986-1999/Feb 28

[File 275] **Gale Group Computer DB(TM)** 1983-2007/Apr 27

[File 476] **Financial Times Fulltext** 1982-2007/Apr 29

[File 624] **McGraw-Hill Publications** 1985-2007/Apr 25
File 624: Homeland Security & Defense and 9 Platt energy journals added Please see HELP NEWS624 for more

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Apr 26

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Apr 26

[File 613] **PR Newswire** 1999-2007/Apr 27
File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.

[File 813] **PR Newswire** 1987-1999/Apr 30

[File 16] **Gale Group PROMT(R)** 1990-2007/Apr 27

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 634] **San Jose Mercury** Jun 1985-2007/Apr 22

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Apr 27

[File 20] **Dialog Global Reporter** 1997-2007/Apr 28

[File 35] **Dissertation Abs Online** 1861-2007/Apr

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13
File 583: This file is no longer updating as of 12-13-2002.

[File 65] **Inside Conferences** 1993-2007/Apr 27

[File 2] **INSPEC** 1898-2007/Apr W3

[File 474] **New York Times Abs** 1969-2007/Apr 28

[File 475] **Wall Street Journal Abs** 1973-2007/Apr 27

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Mar

[File 256] **TecInfoSource** 82-2007/Apr

[File 348] **EUROPEAN PATENTS** 1978-2007/ 200716
File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

[File 349] **PCT FULLTEXT** 1979-2007/UB=20070419UT=20070312
File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

[File 347] **JAPIO** Dec 1976-2006/Dec(Updated 070403)

[File 635] **Business Dateline(R)** 1985-2007/Apr 28

[File 570] **Gale Group MARS(R)** 1984-2007/Apr 27

[File 387] **The Denver Post** 1994-2007/Apr 26

[File 471] **New York Times Fulltext** 1980-2007/Apr 28

[File 492] **Arizona Repub/Phoenix Gaz** 19862002/Jan 06
File 492: This file is no longer updating.

[File 494] **St LouisPost-Dispatch** 1988-2007/Apr 25

[File 631] **Boston Globe** 1980-2007/Apr 27

[File 633] **Phil.Inquirer** 1983-2007/Apr 27

[File 638] **Newsday/New York Newsday** 1987-2007/Apr 27

[File 640] **San Francisco Chronicle** 1988-2007/Apr 27

[File 641] **Rocky Mountain News** Jun 1989-2007/Apr 28

[File 702] **Miami Herald** 1983-2007/Mar 25

[File 703] **USA Today** 1989-2007/Apr 27

[File 704] **(Portland)The Oregonian** 1989-2007/Apr 27

[File 713] **Atlanta J/Const.** 1989-2007/Apr 27

[File 714] **(Baltimore) The Sun** 1990-2007/Apr 27

[File 715] **Christian Sci.Mon.** 1989-2007/Apr 27

[File 725] **(Cleveland)Plain Dealer** Aug 1991-2007/Apr 27

[File 735] **St. Petersburg Times** 1989- 2007/Apr 27

[File 477] **Irish Times** 1999-2007/Apr 27

[File 710] **Times/Sun.Times(London)** Jun 1988-2007/Apr 28

[File 711] **Independent(London)** Sep 1988-2006/Dec 12
File 711: Use File 757 for full current day's news of the Independent, as as well as full coverage of many additional European news sources.

[File 756] **Daily/Sunday Telegraph** 2000-2007/Apr 27

[File 757] **Mirror Publications/Independent Newspapers** 2000-2007/Apr 27

[File 47] **Gale Group Magazine DB(TM)** 1959-2007/Apr 16

```
?   S AU=(rippingale, j? OR rippingale j? OR ((jan or janice)(2N)rippingale))

>>>W:   One·or more prefixes are unsupported
```

```
or undefined in one or more files.
        0   AU=RIPPINGALE, J?
        8   AU=RIPPINGALE J?
    59441   AU=JAN
     8318   AU=JANICE
       15   AU=RIPPINGALE
        2   (AU=JAN OR AU=JANICE)(2N)AU=RIPPINGALE
S1      8   S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE)(2N)RIPPINGALE))


?   S AU=(pottish, s? OR pottis s? OR ((sue or susan)(2N)pottish))
>>>W:   One or more prefixes are unsupported

   or undefined in one or more files.
        0   AU=POTTISH, S?
        0   AU=POTTIS S?
    56868   AU=SUE
   145482   AU=SUSAN
        2   AU=POTTISH
        2   (AU=SUE OR AU=SUSAN)(2N)AU=POTTISH
S2      2   S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN)(2N)POTTISH))


?   t s1/k/all
```

1/K/1 (Item 1 from file: 348)
EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rights reserved.

Inventor:

• **RIPPINGALE, Jan**
```
    ;;
```

Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

1/K/2 (Item 2 from file: 348)
EUROPEAN PATENTS

Inventor:

- **RIPPINGALE, John, B...**
    ; ;

Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

1/K/3 (Item 3 from file: 348)
EUROPEAN PATENTS

Inventor:

- **Rippingale, John...**
    ; ;

Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

1/K/4 (Item 1 from file: 349)
PCT FULLTEXT

Patent Applicant/Inventor:

- **RIPPINGALE Jan**
    ; ; ; ;

Country	Number	Kind	Date

1/K/5 (Item 2 from file: 349)
PCT FULLTEXT

Country	Number	Kind	Date

1/K/6 (Item 3 from file: 349)
PCT FULLTEXT

Country	Number	Kind	Date

1/K/7 (Item 4 from file: 349)
PCT FULLTEXT

Country	Number	Kind	Date

1/K/8 (Item 5 from file: 349)
PCT FULLTEXT

Country	Number	Kind	Date

```
?  d s

Set      Items    Description
S1          8     S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE)(2N)RIPPINGALE))
S2          2     S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN)(2N)POTTISH))


?  s pd<20020627
Processing

Processing

Processing

Processing

Processing

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Processing
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```
>>>W:  One or more prefixes are unsupported

   or undefined in one or more files.
S3   100051618    S PD<20020627


?  s s3 and (s1 or s2)
      100051618    S3
             8    S1
             2    S2
S4           6    S S3 AND (S1 OR S2)


?  rd
>>>W:  Duplicate detection is not supported for File 348.
Duplicate detection is not supported for File 349.
Duplicate detection is not supported for File 347.
Records from unsupported files will be retained in the RD set.
S5           6    RD   (UNIQUE ITEMS)


?  t s5/7/all
```

5/7/1 (Item 1 from file: 348)
EUROPEAN PATENTS
00447284
METHODS AND APPARATUS EMPLOYING PERMANENT MAGNETS FOR MARKING, LOCATING, TRACING AND IDENTIFYING HIDDEN OBJECTS SUCH AS BURIED FIBER OPTIC CABLES.
VERFAHREN UND VORRICHTUNG MIT PERMANENTMAGNETEN ZUM MARKIEREN, ORTEN, VERFOLGEN UND IDENTIFIZIEREN VON VERBORGENEN OBJEKTEN WIE VERGRABENEN LICHTWELLENLEITERN.
PROCEDES ET APPAREIL EMPLOYANT DES AIMANTS PERMANENTS POUR MARQUER, LOCALISER, SUIVRE ET IDENTIFIER DES OBJETS CACHES TELS QUE DES C BLES A FIBRE OPTIQUE ENTERR

Patent Assignee:

• **SCHONSTEDT INSTRUMENT COMPANY**; (602500)
   1775 Wiehle Avenue; Reston Virginia 22090-5199; (US)
   (applicant designated states: AT;BE;CH;DE;DK;FR;GB;IT;LI;LU;NL;SE)

Inventor:

• **RIPPINGALE, John, B.**
   P.O. Box 265 C, Route 1; Leesburg, VA 22075; (US)

- **UPTON, Charles, R.**
  10219 Leslie Street; Silver Spring, MA 20902; (US)

- **SCHONSTEDT, Erik, O.**
  1604 Greenbriar Court; Reston, VA 22090; (US)

- **OSMAN, Bradley, L.**
  2787 Melchester Drive; Herndon, VA 22071; (US)

Legal Representative:

- **Rostovanyi, Peter et al (24041)**
  AWAPATENT AB, Box 5117; S-200 71 Malmo; (SE)

	Country	Number	Kind	Date	
Patent	EP	419637	A1	19910403	(Basic)
	EP	419637	A1	19921202	
	EP	419637	B1	19941130	
	WO	9010879		19900920	
Application	EP	90906529		19900207	
	WO	90US748		19900207	
Priorities	US	323860		19890315	
	US	428757		19891030	

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NL; SE;

International Patent Class (V7): G01V-003/08; ; **CITED PATENTS: (EP A)**

EP 11536 A; **CITED PATENTS: (WO A)**

US 3568626 A; US 2854840 A; JP 10009977 A; US 4107601 A; US RE30393 E; US 4573016 A; JP 46000480 A; JP 54000280 A; FR 2609556 A; DE 3106661 A;
NOTE: No A-document published by EPO

Type	Pub. Date	Kind	Text
Lapse:	20000209	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 19941130, BE 19941130, CH 19941130, LI 19941130, DK 19941130, IT 19941130, LU 19950228,
Application:	19910403	A1	Published application (A1with;A2without)
Examination:	19910403	A1	Date of filing of request for examination: 901027
Search Report:	19921202	A1	Drawing up of a supplementary European search report: 921014
Examination:	19930908	A1	Date of despatch of first examination report: 930723
Grant:	19941130	B1	Granted patent
Lapse:	19950719	B1	Date of lapse of the European patent in a Contracting State: AT 941130

Lapse:	19950802	B1	Date of lapse of the European patent in a Contracting State: AT 941130, CH 941130, LI 941130
Lapse:	19950802	B1	Date of lapse of the European patent in a Contracting State: AT 941130, CH 941130, LI 941130
Lapse:	19951011	B1	Date of lapse of the European patent in a Contracting State: AT 941130, BE 941130, CH 941130, LI 941130
Oppn None:	19951122	B1	No opposition filed
Lapse:	19980408	B1	Date of lapse of the European patent in a Contracting State: AT 941130, BE 941130, CH 941130, LI 941130, DK 941130
Lapse:	19991020	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 19941130, BE 19941130, CH 19941130, LI 19941130, DK 19941130, IT 19941130,

Publication: English
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Application: English

Available Text	Language	Update	Word Count

CLAIMS B	(English)	EPBBF1	1130
CLAIMS B	(German)	EPBBF1	995
CLAIMS B	(French)	EPBBF1	1152
SPEC B	(English)	EPBBF1	3531
Total Word Count (Document A) 0			
Total Word Count (Document B) 6808			
Total Word Count (All Documents) 6808			

Claims: EP 419637 B1

1. A method of detecting the location of a hidden elongated cylindrical or tubular object (12), in which said object is provided with an elongated permanent magnet device (10) having its length extending along the length of said object, said device is formed of magnetic material dispersed in said object and the location of said object is detected with a magnetic field detector (14), characterized in that the magnetic material is magnetized transversely of said object to provide a magnetic axis transverse to the length of said object and to provide a magnetic field that varies in a predetermined manner along the length of said object, and that the location of said object is detected by detecting the variations of said magnetic field with said detector.

2. A method in accordance with Claim 1, characterized in that said magnetic axis varies in orientation at different positions along the length of said object.

3. A method in accordance with Claim 1, characterized in that said magnetic field varies repetitively along the length of said object, and said detector detects the repetitive variations of said magnetic field.

4. A method in accordance with Claim 3, wherein said object is buried approximately horizontally beneath the surface of the earth and characterized in that detector is moved over the surface of the earth along a line approximately parallel to the length of said object in order to trace the location of said object.

5. A method in accordance with Claim 4, characterized in that the repetitive variations of said magnetic field produce a series of magnetic field peaks and valleys along said line that are detected by said detector.

6. A method in accordance with Claim 5, characterized in that said detector is of a type having opposite polarity indications corresponding to said peaks and valleys, respectively.

7. A method in accordance with Claim 1, characterized in that both horizontal and vertical components of said magnetic field vary repetitively along the length of said object.

8. A method in accordance with Claim 7, characterized in that said detector detects both said horizontal and vertical components.

9. A method in accordance with Claim 8, characterized in that said detector determines a vector sum of said horizontal and vertical components.

10. A method in accordance with Claim 8, characterized in that said detector determines a scalar sum of said horizontal and vertical components.

11. A method in accordance with Claim 1, characterized in that said detector is a hand-held gradiometer.

12. A method in accordance with Claim 1, characterized in that said device is formed as a helix having a longitudinal axis extending along the length of said object.

13. A method in accordance with Claim 12, characterized in that the longitudinal pitch of said helix is substantially greater than the cross dimensions of said helix.

14. A method in accordance with Claim 13, characterized in that said pitch is of the order of 3.66 m (12 feet).

15. A method in accordance with Claim 1, characterized in that said device is formed so that it has a width dimension substantially greater than a thickness dimension and is magnetized in the direction of its width.

16. A method in accordance with Claim 1, characterized in that said magnetic material is substantially non-conductive.

17. A method in accordance with Claim 1, characterized in that said object is formed of plastic.

18. A method in accordance with Claim 1, characterized in that said object is formed as a tube with the magnetic material dispersed in a wall of the tube.

19. A method in accordance with Claim 1, characterized in that the orientation of said magnetic axis is substantially vertical at regions spaced along the length of said object, and a vertical component of said magnetic field at said regions diminishes at a rate that is substantially less than the cube of the distance from said object in a vertical direction.

20. A method in accordance with Claim 19, characterized in that said rate is substantially the square of said distance.

21. An elongated magnetic device (10) for magnetically detecting the location of a hidden elongated cylindrical or tubular object (12), said device comprising magnetic material dispersed in said object, characterized in that the magnetic material is magnetized transverse to the length of the object so as to have a magnetic axis transverse to its length and so as to provide a magnetic field that varies repetitively along the length of the object in a predetermined manner, thereby to provide a characteristic magnetic field signature capable of detection by a magnetic field detector (14) moved along the length of the object, whereby the location of said object may be detected.

22. An elongated magnetic device in accordance with Claim 21, characterized in that the orientation of said magnetic axis varies repetitively along the length of the object.

23. An elongated magnetic device in accordance with Claim 21, characterized in that the magnetized magnetic material forms a strip in the shape of an elongated helix.

24. An elongated magnetic device in accordance with Claim 23, characterized in that said strip is substantially non-conductive.

25. An elongated magnetic device in accordance with Claim 23, characterized in that said helix has a longitudinal pitch that is substantially greater than the cross-dimensions of said helix.

26. An elongated magnetic device in accordance with Claim 25, characterized in that said pitch is of the order of 3.66 m (12 feet).

27. An elongated magnetic device in accordance with Claim 23, characterized in that the width of said strip is less than the width of said object.

28. An elongated magnetic device in accordance with Claim 23, characterized in that the width of said strip corresponds to the width of said object.

29. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of spaced strips (16 or 17) of magnetic material with their length extending along the length of said object and being magnetized transverse to their length.

30. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of spaced tubes (18 or 20) of magnetic material coaxial with the object and magnetized transverse to their length.

31. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of strips (16 or 17) of magnetic material with their length extending along the length of said object at circumferentially spaced positions on said object and magnetized transverse to their length.

32. An elongated magnetic device in accordance with Claim 31, characterized in that said positions are also spaced longitudinally on said object.

33. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of tubes (18 or 20) of magnetic material spaced along the length of said object and having collinear axes parallel to the length of said object, each tube having a magnetic axis transverse to the length of said object, and the magnetic axes of successive tubes having different orientations.

34. An elongated magnetic device in accordance with Claim 33, characterized in that each tube is defined by a helical strip (20).

Claims: EP 419637 B1

1. Verfahren zum Ermitteln der Lage eines verborgenen länglichen zylindrischen oder röhrenförmigen Gegenstandes (12), wobei der Gegenstand mit einer länglichen, Permanentmagnetvorrichtung (10) versehen ist, deren Länge sich über die Länge des Gegenstandes erstreckt, wobei die Vorrichtung aus magnetischem Material besteht, das in dem Gegenstand verteilt ist, und die Lage des Gegenstandes mit einem Magnetfelddetektor (14) ermittelt wird, dadurch gekennzeichnet, das das magnetische Material quer zu dem Gegenstand magnetisiert ist, so das eine Magnetachse quer zur Länge des Gegenstandes geschaffen wird und ein Magnetfeld geschaffen wird, das über die Länge des Gegenstandes auf vorgegebene Weise schwankt, und das die Lage des Gegenstandes ermittelt wird, indem die Schwankungen des Magnetfeldes mit dem Detektor erfast werden.

2. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das die Magnetachse an verschiedenen Positionen über die Länge des Gegenstandes verschieden ausgerichtet ist.

3. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das das Magnetfeld über die Länge des Gegenstandes sich wiederholend schwankt, und das der Detektor die sich wiederholenden Schwankungen des Magnetfeldes erfast.

4. Verfahren nach Anspruch 3, wobei der Gegenstand annahernd horizontal unterhalb der Erdoberflache eingegraben ist, und dadurch gekennzeichnet, das der Detektor uber die Erdoberflache in einer Linie annahernd parallel zur Lange des Gegenstandes bewegt wird, um die Lage des Gegenstandes aufzufinden.

5. Verfahren nach Anspruch 4, dadurch gekennzeichnet, das die sich wiederholenden Schwankungen des Magnetfeldes eine Reihe von Magnetfeldspitzen und -talern entlang der Linie erzeugen, die von dem Detektor erfast werden.

6. Verfahren nach Anspruch 5, dadurch gekennzeichnet, das der Detektor von der Art ist, die entgegengesetzte Polaritatsanzeigen aufweist, die den Spitzen bzw. Talern entsprechen.

7. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das sowohl horizontale als auch vertikale Komponenten des Magnetfeldes uber die Lange des Gegenstandes sich wiederholend schwanken.

8. Verfahren nach Anspruch 7, dadurch gekennzeichnet, das der Detektor sowohl die horizontalen als auch die vertikalen Komponenten erfast.

9. Verfahren nach Anspruch 8, dadurch gekennzeichnet, das der Detektor eine Vektorsumme der horizontalen und vertikalen Komponenten bestimmt.

10. Verfahren nach Anspruch 8, dadurch gekennzeichnet, das der Detektor eine Skalarsumme der horizontalen und vertikalen Komponenten bestimmt.

11. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das der Detektor ein Handgradiometer ist.

12. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das die Vorrichtung als Wendel mit einer Langsachse ausgeformt ist, die sich uber die Lange des Gegenstandes erstreckt.

13. Verfahren nach Anspruch 12, dadurch gekennzeichnet, das die Langssteigung der Wendel erheblich groser ist als die Querabmessungen der Wendel.

14. Verfahren nach Anspruch 13, dadurch gekennzeichnet, das die Steigung in der Grosenordnung von 3,66 m (12 Fus) liegt.

15. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das die Vorrichtung so geformt ist, das ihre Breitenabmessung erheblich groser ist als ihre Dickenabmessung und sie in der Richtung ihrer Breite magnetisiert ist.

16. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das das magnetische Material im wesentlichen nichtleitend ist.

17. Verfahren nach Anpruch 1, dadurch gekennzeichnet, das der Gegenstand aus Kunststoff besteht.

18. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das der Gegenstand als eine Rohre ausgeformt ist, wobei das magnetische Material in einer Wand der Rohre verteilt ist.

19. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das die Ausrichtung der Magnetachse in Bereichen, die uber die Lange des Gegenstandes beabstandet sind, im wesentlichen vertikal ist, und eine vertikale Komponente des Magnetfeldes in den Bereichen in einem Grad abnimmt, der im wesentlichen geringer ist als die dritte Potenz des Abstandes zu dem Gegenstand in einer vertikalen Richtung.

20. Verfahren nach Anspruch 19, dadurch gekennzeichnet, das der Grad im wesentlichen die zweite Potenz des Abstandes ist.

21. Langliche Magnetvorrichtung (10) zum magnetischen Ermitteln der Lage eines verborgenen langlichen, zylindrischen oder rohrenformigen Gegenstandes (12), wobei die Vorrichtung magnetisches Material umfast, das in dem Gegenstand verteilt ist, dadurch gekennzeichnet, das das magnetische Material quer zur Lange des Gegenstandes magnetisiert ist, so das es eine Magnetachse quer zu seiner Lange aufweist, und so das es ein Magnetfeld erzeugt, das uber die Lange des Gegenstandes auf vorgegebene Weise sich wiederholend schwankt, wodurch eine charakteristische Magnetfeldzeichnung entsteht, die von einem Magnetfeldetektor (14) erfast werden kann, der uber die Lange des Gegenstandes bewegt wird, wodurch die Lage des Gegenstandes ermittelt werden kann.

22. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Ausrichtung der Magnetachse uber die Lange des Gegenstandes sich wiederholend schwankt.

23. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das das magnetisierte magnetische Material einen Streifen in Form einer langlichen Wendel bildet.

24. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das der Streifen im wesentlichen nichtleitend ist.

25. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das die Wendel eine Langssteigung aufweist, die erheblich groser ist als die Querabmessungen der Wendel.

26. Langliche Magnetvorrichtung nach Anspruch 25, dadurch gekennzeichnet, das die Steigung in der Grosenordnung von 3,66 m (12 Fus) liegt.

27. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das die Breite des Streifens kleiner ist als die Breite des Gegenstandes.

28. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das die Breite des Streifens der Breite des Gegenstandes entspricht.

29. Langliche Magnetvorrichtung nach Anspurch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl beabstandeter Streifen (16 oder 17) aus magnetischem Material umfast, wobei sich ihre Lange uber die Lange des Gegenstandes erstreckt und sie quer zu ihrer Lange magnetisiert sind.

30. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl beabstandeter Rohren (18 oder 20) aus magnetischem Material umfast, die koaxial zu dem Gegenstand sind und quer zu ihrer Lange magnetisiert sind.

31. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl von Streifen (16 oder 17) aus magnetischem Material umfast, wobei sich ihre Lange uber die Lange des Gegenstandes an in Umfangsrichtung beabstandeten Positionen an dem Gegenstand erstreckt und sie quer zu ihrer Lange magnetisiert sind.

32. Langliche Magnetvorrichtung nach Anspruch 31, dadurch gekennzeichnet, das die Positionen auch in Langsrichtung auf dem Gegenstand beabstandet sind.

33. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl von Rohren (18 oder 20) aus magnetischem Material umfast, die uber die Lange des Gegenstandes beabstandet sind, und die kollineare Achsen parallel zur Lange des Gegenstandes haben, wobei jede Rohre eine Magnetachse quer zur Lange des Gegenstandes aufweist, und die Magnetachsen aufeinanderfolgender Rohren unterschiedliche Ausrichtungen haben.

34. Langliche Magnetvorrichtung nach Anspruch 33, dadurch gekennzeichnet, das jede Rohre durch einen wendelformigen Streifen (20) gebildet wird.

Claims: EP 419637 B1

1. Procede de detection de la position d'un objet (12) cylindrique ou tubulaire, allonge, cache, dans lequel ledit objet est pourvu d'un dispositif a magnetisme permanent (10) allonge, dont la longueur s'etend dans la direction longitudinale dudit objet, ledit dispositif etant constitue de materiau magnetique, disperse dans ledit objet et l'emplacement dudit objet etant detecte a l'aide d'un detecteur de champ magnetique (14), caracterise en ce que le materiau magnetique est l'objet d'une magnetisation orientee dans la direction transversale dudit objet, pour constituer un axe magnetique transversal par rapport a la direction longitudinale dudit objet et pour constituer un champ magnetique variant de maniere predeterminee dans la longueur dudit objet, et en ce que l'emplacement dudit objet est detecte par la detection des variations dudit champ magnetique, apprehendee a l'aide dudit detecteur.

2. Procede selon la revendication 1, caracterise en ce que l'orientation dudit axe magnetique varie en differentes positions de la longueur dudit objet.

3. Procede selon la revendication 1, caracterise en ce que ledit champ magnetique varie de facon repetitive sur la longueur dudit objet, et ledit detecteur detecte les variations repetitives dudit champ magnetique.

4. Procede selon la revendication 3, dans lequel ledit objet est cache a peu pres horizontalement sous la surface du sol et caracterise en ce que le detecteur est deplace sur la surface du sol, sur une ligne a peu pres parallele a la direction longitudinale dudit objet, de maniere a obtenir la trace de l'emplacement dudit objet.

5. Procede selon la revendication 4, caracterise en ce que les variations repetitives dudit champ magnetique produisent une serie de cretes et de vallees du champ magnetique, sur ladite ligne, ces cretes et vallees etant detectees par ledit detecteur.

6. Procede selon la revendication 5, caracterise en ce que ledit detecteur est du type donnant des indications de polarites inverses correspondant respectivement auxdites cretes et vallees.

7. Procede selon la revendication 1, caracterise en ce que les composantes horizontales ainsi que les composantes verticales dudit champ magnetique varient de facon repetitive sur la longueur dudit objet.

8. Procede selon la revendication 7, caracterise en ce que ledit detecteur detecte a la fois lesdites composantes horizontales et verticales.

9. Procede selon la revendication 8, caracterise en ce que ledit detecteur effectue la somme vectorielle desdites composantes horizontales et verticales.

10. Procede selon la revendication 8, caracterise en ce que ledit detecteur effectue la somme scalaire desdites composantes horizontales et verticales.

11. Procede selon la revendication 1, caracterise en ce que ledit detecteur est un gradiometre portatif.

12. Procede selon la revendication 1, caracterise en ce que ledit dispositif est realise en forme d'helice, avec un axe longitudinal s'etendant dans la direction longitudinale dudit objet.

13. Procede selon la revendication 12, caracterise en ce que le pas longitudinal de ladite helice est sensiblement superieur aux dimensions transversales de ladite helice.

14. Procede selon la revendication 13, caracterise en ce que ledit pas est de l'ordre de 3,66 m (12 pieds).

15. Procede selon la revendication 1, caracterise en ce que ledit dispositif est realise de facon a ce que sa largeur soit sensiblement superieure a son epaisseur et est magnetise dans la direction de sa largeur.

16. Procede selon la revendication 1, caracterise en ce que ledit materiau magnetique est pratiquement non-conducteur.

17. Procede selon la revendication 1, caracterise en ce que ledit objet est en matiere plastique.

18. Procede selon la revendication 1, caracterise en ce que ledit objet est realise sous forme de tube, le materiau magnetique etant disperse dans la paroi du tube.

19. Procede selon la revendication 1, caracterise en ce que l'orientation dudit axe magnetique est sensiblement verticale en des zones espacees sur la longueur dudit objet, et la composante verticale dudit champ magnetique, en lesdites zones, va en diminuant avec une tendance sensiblement inferieure a la puissance cubique de la distance par rapport audit objet en direction verticale.

20. Procede selon la revendication 19, caracterise en ce que ladite tendance evolue sensiblement comme la puissance carree de ladite distance.

21. Dispositif magnetique (10) allonge, pour la detection magnetique de l'emplacement d'un objet cylindrique ou tubulaire (12) allonge, cache, ledit dispositif comprenant un materiau magnetique disperse dans ledit objet, caracterise en ce que le materiau magnetique est l'objet d'une magnetisation orientee transversalement par rapport a la direction longitudinale de l'objet, de facon a avoir un axe magnetique transversal par rapport a sa direction longitudinale et a produire un champ magnetique variant de maniere repetitive dans la longueur dudit objet, d'une maniere predeterminee, de maniere a produire une signature de champ magnetique caracteristique, susceptible d'etre detectee par un detecteur de champ magnetique (14) deplace sur la longueur de l'objet, faisant que l'emplacement dudit objet peut etre detecte.

22. Dispositif magnetique allonge selon la revendication 21, caracterise en ce que l'orientation dudit axe magnetique varie de facon repetitive sur la longueur dudit objet.

23. Dispositif magnetique allonge selon la revendication 21, caracterise en ce que le materiau magnetique magnetise forme une bande ayant la forme d'une helice allongee.

24. Dispositif magnetique allonge selon la revendication 23, caracterise en ce que ladite bande est pratiquement non conductrice.

25. Dispositif magnetique allonge selon la revendication 23, caracterise en ce que le pas longitudinal de ladite helice est sensiblement superieur aux dimensions transversales de ladite helice.

26. Dispositif magnetique allonge selon la revendication 25, caracterise en ce que ledit pas est de l'ordre de 3,66 m (12 pieds).

27. Dispositif magnetique allonge selon la revendication 23, caracterise en ce que la largeur de ladite bande est inferieure a la largeur dudit objet.

28. Dispositif magnetique allonge selon la revendication 23, caracterise en ce que la largeur de ladite bande correspond a la largeur dudit objet.

29. Dispositif magnetique allonge selon la revendication 21, caracterise en ce que ledit dispositif comprend une pluralite de bandes espacees (16 ou 17), en materiau magnetique, leur longueur etant orientee dans la direction longitudinale dudit objet et leur magnetisation etant orientee dans la direction transversale par rapport a leur longueur.

30. Dispositif magnetique allonge selon la revendication 21, caracterise en ce que ledit dispositif comprend une pluralite de tubes (18 ou 20) espaces, realisee en un materiau magnetique, places coaxialement par rapport a l'objet et magnetises en direction transversale par rapport a leur direction longitudinale.

31. Dispositif magnetique allonge selon la revendication 21, caracterise en ce que ledit dispositif comprend une pluralite de bandes (16 ou 17) en materiau magnetique, leur longueur etant orientee dans la direction longitudinale

dudit objet, en des emplacements espaces circonferentiellement sur ledit objet et leur magnetisation etant orientee dans la direction transversale par rapport a leur longueur.

32. Dispositif magnetique allonge selon la revendication 31, caracterise en ce que lesdits emplacements sont egalement espaces longitudinalement sur ledit objet.

33. Dispositif magnetique allonge selon la revendication 21, caracterise en ce que ledit dispositif comprend une pluralite de tubes (18 ou 20) en materiau magnetique, espaces dans la direction longitudinale dudit objet et ayant des axes colineaires, paralleles a la direction longitudinale dudit objet, chaque tube ayant un axe magnetique transversal par rapport a la direction longitudinale dudit objet, et les axes magnetiques des tubes successifs ayant des orientations differentes.

34. Dispositif magnetique allonge selon la revendication 33, caracterise en ce que chaque tube est defini par une bande helicoidale (20).

5/7/2 (Item 2 from file: 348)
EUROPEAN PATENTS
00152125
Apparatus and method employing extraneous field compensation for locating current-carrying objects.
Vorrichtung und Verfahren zur Lagebestimmung von stromdurchflossenen Objekten unter Verwendung von extern gelagerter Kompensation.
Dispositif et procede utilisant des compensations de champs de dispersion pour localiser des objets porteurs de courant.

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	Country	Number	Kind	Date	
Patent	EP	122899	A2	19841024	(Basic)
	EP	122899	A3	19850417	
	EP	122899	B1	19880914	
Application	EP	84850115		19840410	

Priorities	US	483613		19830411	

Designated States:
DE; FR; GB; IT; SE;

International Patent Class (V7): G01R-033/025; G01V-003/08; **Abstract** EP 122899 A2

In locating current-carrying objects, such as buried pipes in the presence of extraneous magnetic fields by detecting the magnetic field produced by the current, first and second spaced primary sensors measure the magnetic field at first and second locations, and a compensating sensor measures the extraneous field at a location midway between the first and second locations. The signal from the compensating sensor is combined with the signals from both of the primary sensors so as to compensate for the extraneous magnetic field at the primary sensors. The invention compensates for ambient magnetic fields associated with propagating electromagnetic energy that induces current in an object, and compensates for extraneous magnetic fields produced by current flow in an adjacent object.

Abstract Word Count: 132

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Application:	19841024	A2	Published application (A1with;A2without)
Search Report:	19850417	A3	Separate publication of the European or International search report
Examination:	19851218	A2	Date of filing of request for examination: 851010
Examination:	19870128	A2	Date of despatch of first examination report: 861216
Grant:	19880914	B1	Granted patent
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Application:English

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5/7/3 (Item 1 from file: 349)
PCT FULLTEXT
00276408
METHODS OF DETECTING LOCATION OF MAGNETICALLY-MARKED ELONGATED BURIED OBJECTS
PROCEDES DE DETECTION DE L'EMPLACEMENT D'OBJETS ALLONGES ENTERRES POURVUS DE DISPOSITIFS DE MARQUAGE MAGNETIQUES

Patent Applicant/Patent Assignee:

	Country	Number	Kind	Date
Patent	WO	9424584	A1	19941027
Application	WO	94US3328		19940328
Priorities	US	9348068		19930420

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Fulltext word count:	2697

English Abstract:

A method of detecting location of a buried magnetically-marked elongated object (12) uses a horizontal gradiometer (14) for measuring the horizontal gradient of components of a magnetic field associated with the buried object (12). The object (12) is preferably provided with a helical permanent magnet marking device (10) magnetized transverse to its length to provide magnetic field components above the surface of the earth that vary periodically along the length of the device (10). The gradiometer has horizontally spaced sensors (S) and is designed to measure variations of the horizontal gradient of a vertical magnetic field component, and to measure variations of the horizontal gradient of a horizontal axial magnetic field component, as the gradiometer (14) is moved along the surface of the earth approximately parallel to the buried permanent magnet marking device (10). The measured gradient variations may be read out individually or as a sum. The method provides improved sensitivity and selectivity, which reduces errors due to magnetic clutter.

French Abstract:

Procede de detection de l'emplacement d'un objet (12) allonge enterre pourvu d'un dispositif de marquage magnetique dans lequel on utilise un gradiometre horizontal (14) pour mesurer le gradient horizontal des composantes d'un champ magnetique associe a l'objet enterre (12). L'objet (12) est, de preference, pourvu d'un dispositif (10) de marquage a aimant permanent helicoidal qui est magnetise transversalement a sa longueur pour produire des composantes de champ magnetique au-dessus de la surface du sol qui varient periodiquement sur la longueur du dispositif (10). Le gradiometre comprend des capteurs (5) horizontalement espaces et est concu pour mesurer les variations du gradient horizontal d'une composante verticale du champ magnetique et mesurer les variations du gradient horizontal d'une composante axiale horizontale du champ magnetique a mesure qu'on deplace le gradiometre (14) au-dessus de la surface du sol sensiblement parallelement au dispositif (10) de marquage a aimant permanent enterre. Les variations mesurees du gradient peuvent etre lues de maniere individuelle ou globale. Ce procede ameliore la sensibilite et la selectivite et reduit par consequent les erreurs dues aux echos parasites du champ magnetique.

Claims:

I 1. A method of detecting location of an elongated
permanent magnet marking device buried beneath thesurface of the earth approximately horizontally andmagnetized so as to provide a magnetic field componentthat varies in magnitude periodically along the lengthof the device, comprising detecting periodic variationsof the magnetic field component by moving a horizontalmagnetic gradiometer along the surface @of the earthsubstantiall' parallel to the marking device, so as toymeasure variations of the horizontal gradient of themagnetic field component.

2 A method of detecting location of an elongated
object buried beneath the surface of the earth, comprising burying with said object an elongated permanentmagnet marking device with its length extending alongthe length of the object and magnetized transverse toits length to provide a magnetic axis that issubstantially transverse to the length of the markingdevice and the direction of which varies progressivelyand periodically along the length of the markingdevice, so as to provide above the surface of the eartha magnetic field having a vertical component, themagnitude and polarity of which vary periodically alongthe length of the marking device, and a horizontalcomponent along the length of the marking device, themagnitude and polarity of which vary periodically alongthe length of the marking device, and detectingperiodic variations of the horizontal gradient of atleast one of said components by moving along thesurface of the earth substantially parallel to themarking device a horizontal magnetic gradiometer havingmagnetic sensors spaced apart a predetermined distanceand oriented so as to be sensitive to a magnetic fieldcomponent to be sensed.

3 A method in accordance with Claim 2, wherein
periodic variations of the horizontal gradients of bothof said components are detected.

4 A method in accordance with Claim 3, wherein
the distance between the sensors is co rrelated with theperiodicity of said magnetic field components.

5 A method in accordance with Claim 3, wherein
signals produced by the detecting of the periodicvariations of both of said gradients are summed.61 A method in accordance with Claim 2, whereinthe distance between the sensors is correlated with theperiodicity of the magnetic field components.

7 A method in accordance with Claim 2, wherein
the marking device is formed as a helix.81 A method in accordance with Claim 7. whereinthe pitch of the helix is about 12 feet and themagnetic sensors are spaced apart about 4 feet.91 A method in accordance with Claim 7, whereinthe pitch of the helix is about 8 feet and the magneticsensors are spaced apart about 4 feet.

METHODS, APPARATUS AND DEVICES RELATING TO MAGNETIC MARKERS FOR ELONGATED HIDDEN OBJECTS
PROCEDES, APPAREILS ET DISPOSITIFS RELATIFS A DES MARQUEURS MAGNETIQUES D'OBJETS ALLONGES CACHES

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   ; ;

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English Abstract:

A magnetic marker serving to locate, trace, and identify an elongated hidden object, such as a buried utility pipe, duct, conduit, or fiber optic cable, is manufactured by applying magnetic material to a substrate (26) that is elongated and by forming from the material a helical or twisted permanent magnet pattern extending along the length of the substrate. The magnetic material, which may be coextensive with the substrate (26) or applied to a portion only of the substrate, may be formed as a strip (46) coextruded with the substrate (26) and magnetized in the direction of the width of the strip (46). Alternatively, magnetic material may be mixed with the material from which the substrate (26) is extruded or may be coated on the substrate (26). A strip (104) may also be preformed and applied to an elongated object (100) as the object (100) is buried, or the strip (130) may form a separate warning tape that is buried with the object and that is provided with a desired magnetic signature by twisting the strip (130) lengthwise as it is advanced for burial.

French Abstract:

On produit un marqueur magnetique qui permet de localiser, de depister et d'identifier un objet allonge cache, tel qu'une canalisation, un conduit, une conduite ou un cable a fibre optiques, en appliquant un materiau magnetique sur un substrat (26) allonge et en formant avec le materiau un motif magnetique permanent torsade ou helicoidal qui s'etend dans le sens de la longueur du substrat. Le materiau magnetique, qui recouvre le substrat (26) entierement ou en partie uniquement, peut former une bande (46) extrudee avec le substrat (26) et aimantee dans le sens de la largeur. Alternativement, on peut melanger un materiau magnetique au materiau avec lequel on forme par extrusion le substrat (26) ou on peut enduire le substrat (26) avec le materiau magnetique. On peut egalement preformer une bande (104) et l'appliquer sur un objet allonge (100) avant de l'enterrer, ou la bande (130) peut former une bande separee d'avertissement enterree avec l'objet, a laquelle on donne une signature magnetique voulue par torsion longitudinale de la bande (130) a mesure qu'on l'enterre.

Claims:

marking, locating, tracing, and identifying hidden
elongated objects, such as buried, non-conductivecables (e.g., fiber optic cables) and non-conductivepipes, tubes, ducts, and conduits. In one form of theinvention disclosed and claimed in the co-pendingapplications, a magnetic marker comprises an elongatedpermanent magnet device that is provided on anelongated hidden object to be detected, with the lengthof the device extending along the length of the object,The device comprises a helical strip magnetized in thedirection of its width. With such a device theorientation of the magnetic axis varies at differentpositions along the length of the object to provide amagnetic field signature for locating, tracing,

andidentifying the object.Brief Description of the InventionIn one of its broader aspects, the presentinvention is concerned with methods and apparatus formaking a magnetic marker, in which magnetic material isapplied to a substrate that is elongated, and in whichthe material is formed into a permanent magnet helicalpattern having a helix axis extending along the lengthof the substrate.In another of its broader aspects, the inventionis concerned with a magnetic marker comprising anelongated, flexible magnetic strip magnetizedtransverse to its length and twisted lengthwise,In yet another of its broader aspects, theinvention is concerned with.methods and apparatus forproviding elongated magnetic markers In situ as anelongated object is buried. In one form of theinvention, a magnetic marking tape is wrapped about theobject helically as the object is buried. In anotherform of the invention, a magnetic marking tape isburied above an elongated object as the object isburied, and the tape is twisted lengthwise as it isadvanced for burial.In still another of its broader aspects, theinvention is concerne'd with methods and apparatus formaking a magnetically marked plastic tube, in whichmagnetic particles (provided, e'.g., as a suspension)are attracted to the outer surface of a plastic tube bya magnetic field (e.g., from a magnet inserted in thetube) and are adhered to the surface of the tube (e.g.,by adhesive) to form a coating of magnetic particles onthe surface of the tube,Brief Description of the DrawingsThe invention will be further described inconjunction with the accompanying drawings, whichillustrate preferred and exemplary (best mode) embodiments, wherein: tFig. 1 is a diagrammatic perspective view ofapparatus employed in one embodiment of the invention;Fig* 2 is a diagrammatic perspective view ofapparatus for synchronizing a rotating magnetic fieldwith a helical magnetic stripr4Fig. 3 is a circuit diagram corresponding to theapparatus shown in Fig. 2;Fig. 4 is a diagram illustrating a portion of theapparatus of Figs. 2 and 3 in greater detail;Figs, 5-8 are diagrammatic perspective views ofapparatus employed in further embodiments of theinvention;Fig. 9 is a diagrammatic perspective view of amagnetic marker tape that may be employed in theinvention; andFig* 10 is a diagrammatic perspective view ofapparatus employed in another embodiment of theinvention.Detailed Description of the InventionThe apparatus 10 shown in Fig. 1 is for themanufacture of plastic duct, pipe, or tubing incorporating a helical magnetic marker, by coextrusion.Apparatus for manufacturing duct having electricalcable extending through it is disclosed, for example,in U.S. Patents 4,508,500 and 4,575,326, incorporatedherein by reference. Such apparatus may comprise anextruder 12, one or more sizer/cooler units 14, a driveunit 16, and a take-up spool 18. The extruder 12 maycomprise a hopper 20 for supplying resin pellets, suchas polyethylene, to a heated extrusion screw 22, whichsupplies melted plastic under pressure to an extruderhead 24 having a die for extruding soft plastic in theform of a cylindrical duct, pipe, or tube 26, The tubeis advanced through the sizer/cooler units 14 by thedrive unit 16, which may comprise a plurality of motordriven rollers 28 shaped for engagement with thecylindrical surface of the tube, The tube is extrudedsomewhat oversize and is pulled through holes 30 in aseries of sizing plates 32 in the sizer/cooler units,These units may be under vacuum and may contain acooling water bath. The interior of the tube may bepressurized.In accordance with the invention, a secondextruder 34 is provided in tandem with the firstextruder, The second extruder comprises a hopper 36and a heated extrusion screw 38, like the firstextruder, but the extruder head 40 of the secondextruder comprises a rotatable die 42 with an outlet 44that rotates slowly about the axis of the cylindricaltube 26. Suitable seals are provided between therotating and stationary parts of the extrusion head,the rotating parts being driven by a motor (not shown).The material extruded from the die is a plastic basematerial, such as polyethylene, to which has been addedhigh coercivity magnetic material, such as bariumferrite. The magnetic material employed in theinvention is preferably non-conductive and is preferably applied to a non-conductive substrate that is nonmagnetic.As the tube is advanced from the first extruderhead 24, the second extruder head 40 applies a strip 46of magnetic material to the outer surface of the tube,and, by virtue of the rotation of the outlet of thesecond extruder head, the strip is formed into a longpitch helix having its helix axis parallel to thelength of the tube, The pitch of the helical stripwill depend upon the rate of rotation of the secondextruder head relative to the rate at which the tube isadvanced lengthwise, As the assembly of the tube andstrip is drawn through the sizing plates 32, the stripbecomes embedded in the still soft plastic material ofthe tube.To form a magnetic marker in accordance with theinvention, the strip 46 must be permanently magnetized.For this purpose, two rotating magnetizing heads 48, 50are shown diagrammatically in Fig. 1. In practice,electromagnetic heads. may be used,, although permanentmagnet heads may also be used if the field intensity issufficient. Each head is rotated about the axis of thetube by a motor drive (not shown). The first head 48is an alignment head that aligns and packs the magneticparticles while the plastic is still soft. This headapplies a

relatively weak magnetic field to preventdistortion of the magnetic material while the plasticis still soft. The second head 50 applies a muchstronger magnetic field after the plastic material hascooled sufficiently to be stable. This head may bemuch closer to the magnetic material than the firsthead, In each case, the magnetic field is applied soas to be parallel to the width of the strip of magneticmaterial.Shown adjacent to each magnetizing head in Fig. 1is a sensor 52 for synchronizing each head with therotation of the magnetic strip about the axis of thetube, Many different types of sensors may be employed,including magnetic (e.g., Hall probes), optical, orultrasonic sensors, for example. Figs. 2 and 3illustrate a magnetic sensor 54 employed in a circuitwith a synchro 56 for maintaining a magnetizing head(e,g,,, 48) synchronized with the helical strip 46 ofmagnetic material.As shown in Fig. 2, extruded tube 26 bearing astrip 46 of magnetic material is surrounded by anassembly 54a of three magnetic sensor elements A, B, CoEach sensor element has a magnetic core structure 58provided with a drive winding 60 and a signal winding62* A similar sensor assembly 54b surrounds a reference sample 64, e.g., a length of plastic pipe bearinga helical magnetic strip 66. The components of sensorassembly 54b corresponding to those of sensor assembly54a are designated by the same reference charactersprimed. The signal windings 621 associated with thereference sample will be referred to as feedbackwindings.The magnetizing head 48 is coupled to synchro 56by a gear train 68. Although shown diagrammatically,the magnetizing head is preferably an electromagnethaving pole pieces that are shaped to provide thedesired concentrated magnetic field widthwise of thestrip 46,Figs 4 illustrates a preferred form of each of thesensor elements indicated diagrammatically in Fig. 2,Each sensor element (Al B, or C) comprises an H-shapedcore 58, which may be made of ferrite or silicon steellaminations, for example. The drive winding 60 ismounted on the bridge of the core. All of the drivewindings may be driven in,series,, as shown in Fig. 21from a suitable AC source (a low frequency source, suchas a 60 Hz source, or a high frequency source, such asa 6,000 Hz source). The signal winding 62 comprises apair of coils 62a, 62b wound on opposite ends of oneleg of the core. Conductors 70 connected to the remoteends of the coils provide an output. Adjacent ends ofthe coils are connected to a tap 72 of a potentiometer74 having a resistance 76 that is connected across theconductors 70. The tap is adjustable for balancing thecoils, so that there is no output signal when thesensor element is remote from the magnetic strip 46,The balancing arrangement may also comprise a pair ofcapacitors 78 connected in series across coils 62a,62b, at least one of the capacitors being adjustable.When the magnetic strip 46 approaches an end of thecore 58, as indicated.,)Dy the arrow in Fig. 4, the coils62a, 62b become unbalanced and produce an AC outputsignal.Figs 3 illustrates a circuit that may be employedwith the apparatus of@@@Fig. 2 for maintaining theposition of the magnetizing head 48 synchronized withthe position of the helical strip 46o As shown, thesignal windings 62 are connected-to inputs of amplifiers 80a, 80b, 80c in opposition to correspondingfeedback windings 621, The outputs of the amplifiersdrive the control windings of the synchro 56, it maybe assumed that in an initial set-up operation, themagnetizing head 48 is adjusted to the desired positionrelative to the strip of magnetic material and that thesensor assemblies 54a, 54b are positioned relative tothe strip 46 and the strip 461, respectively, so thatthe synchr

system is in equilibrium. In the exampleshown in Fig. 3, it is assumed that the synchro systemis out of equilibrium and that the magnetic strip beingextruded is adjacent to sensor element B, while thereference strip is adjacent to sensor element Al.Amplifier 80a therefore produces a negative output, andamplifier 80b produces a positive output. Amplifier80c produces a zero output. The synchro 56 rotates themagnetizing head 48 until any outputs of the signalwindings are cancelled by the outputs of the respectivefeedback windings, whereupon the position of themagnetizing head will be synchronized with the extrudedmagnetic strip.In the apparatus shown in Fig. 1, a strip ofmagnetic material is coextruded with a plastic tubeconstituting a substrate, so that magnetic material isapplied to a portion only of the substrate. In amodification of the invention, the magnetic material iscoextensive with the substrate, In such a modification, the second extruder is not used, The magneticmaterial is mixed with the resin supplied to the firstextruder and thus is incorporated in the material fromwhich the tube is extruded. Nevertheless, a helicalpermanent magnet pattern is formed by rotating the magnetizer heads about the axis of the tube as the tube isadvanced from the extruder. The magnetizing field,which is transverse to the length of the tube, may beapplied

diametrally across the entire width of thetube, in which case north and south poles are formed atopposite ends of the diameter of the tube in any crosssectional plane, or may be applied across only aportion of the width of the tube, in which case thewidth of the magnetized strip will be less than thewidth of the tube,As is apparent, the permanent magnet helicalpattern formed by the invention becomes a permanentpart of an elongated substrate, such as a tube, Asdescribed in the aforesaid co-pending applications, thehelical pattern may have a pitch of about 12 feet, forexample, The permanent magnet pattern need not be continuous, but may, if desired, be defined by successivesegments of magnetic material, which, individually,need not be helical. The pattern may be in the form ofa strip or stripe 1/2 inch wide and 1/16 inch thick,for example, but when the magnetic material is distributed throughout the material of the tube, thepattern may have a width equal to the full width of thetube and a thickness equal to the full wall thicknessof the tube. In such an embodiment, a diametralmagnetic axis "rotates" in successive transverse planesalong the length of the elongated substrate, simulatinga diametral strip that is twisted about its longitudinal axis. The magnetic pattern is actuallyconstituted by a pair of helical strips, at oppositesides of a "rotating" diametral magnetic axis.Figs 5 illustrates another embodiment of theinvention. In Fig. 5, an extruder 82 and sizer/coolerunit 84 are shown diagrammatically. The extruder maycomprise a single extrusion head for extruding plasticduct, pipe, or tube (constituting a substrate) fromresin mixed with magnetic material, or a dual extrusionhead for applying a strip of magnetic material to asubstrate by coextrusion. However, unlike theapparatus of Fig. 1, even if the strip is applied bycoextrusion, the strip extruder die is stationary, sothat a straight strip is applied parallel to the lengthof the substrate. The magnetic material is magnetizedtransverse to the length of the substrate bymagnetizing heads as in Fig. 1, but they arestationary.In the embodiment of Fig. 5. a tube 86 withmagnetic material applied thereto is drawn out of thesizer/cooler unit 84 by a drive unit 88 and is woundupon a take-up spool 90 which rotates about a windingaxis 92, To form the magnetic material into a longpitch helix, the take-up spool is also rotated about anaxis 94 perpendicular to the winding axis 92 andsubstantially parallel to the length of the tubeadvanced from the drive unit, For this purpose, thetake-up spool and the drive unit are mounted on aslowly rotating yoke 95, as indicated'diagrammaticallyin Fig, 5e The rotation of the yoke is transmitted bythe relatively stiff plastic being wound on the spoolto the relatively soft plastic in the sizer/coolerunit, providing a long-pitch twist that forms thedesired helical pattern. Because of the twist impartedto the plastic tube, the drive unit 88 may have anarrangement of rollers that is also twisted to accommodate the twist of the tube.Fig, 5 also illustrates a cable 96, such as afiber optic cable, being inserted into a duct as it isextruded. The cable is drawn off of one end of astationary spool 98 and fed into the extruder forinsertion into the duct as it is formed. Drawing thecable off of an end of a stationary spool will impart atwist to the cable, which can be removed by thetwisting rotation of the take-up spool about axis 94,assuming that the stationary spool 98 is of an appropriate size and that the cable is unwound from thespool 98 in the proper direction.In the foregoing embodiments of the invention,magnetic markers are manufactured concurrently with themanufacture of elongated substrates,.such as plastictubes or ducts, Embodiments will now be described inwhich elongated objects are provided with magneticmarkers in the field, in situ, as the objects areburied in the ground.As shown in Fig. 6, an elongated object 100, suchas a conduit or fiber optic cable, is advanced from arotating supply reel 102 for burial in a trench (notshown). During the advancement of the object, amagnetic marker tape or strip 104 of flexible magneticmaterial magnetized transverse to its length is pulledoff of one end of a stationary supply reel 106 having acentral opening 108 through which the elongated object100 is advanced. The tape is wound on its supply reelin successive turns or layers in a conventional manner.A leading end of the tape is attached to a leading endof the elongated object (adhesively, for example), Asthe elongated object is advanced,, the tape 104 ispulled from its supply reel 106 and wrapped helicallyabout the object 100 (which constitutes a substrate) byvirtue of the fact that the point at which the tapeleaves the end of its,stationary supply reel progressesaround the circumference of the reel as successiveturns of tape unwind. The tape supply reel 106 may beprovided with a shroud 110 surrounding the reel anddefining with the outer periphery of the reel acircular slot 112 through which the tape is Dulledunder tension.Figs 7 shows a modification of the apparatus ofFigs 6, In the apparatus of Figs 7 the elongatedobject 100 being drawn from its rotating supply reel102 drives a pulley 114, which drives a gear train 116comprising a plurality of gears, a driving gear 118being fixed to the pulley and a driven gear 120 beingfixed to a hollow shaft 122 that rotates about theelongated object as the object is drawn through theshaft, The hollow shaft.supports an arm 124 with atensioning pulley 126 (tape guide) at its free end,The magnetic marker

tape 104 is advanced over thetensioning pulley from a freely rotating tape reel 128through which the elongated object 100 is pulled,Rotation of the hollow shaft 122 causes the magneticmarker tape 104 to be wound helically upon theelongated object 100 (the leading end of the tape beingaffixed to the object),In the foregoing embodiments of the invention, anelongated object supports a helical magnetic markerstrip or tape, and the diameter of the helical turns isdetermined by the diameter of the elongated object, Asthe diameter of the object is made smaller and smaller,the diameter of the helical turns becomes smaller andsmaller, and if the diameter of the object is reducedto zero, i.e., the object is eliminated as a substratefor the magnetic marker, the marker becomes a strip ortape that is merely twisted lengthwise. Due to thetwisting, the magnetic axis of the marker varies alongthe length of the marker and thus produces a magneticsignature with peaks and valleys similar to thesignature produced by the helical magnetic markerspreviously described.In one of the embodimentsidisclosed-in theaforesaid co-pending applications and referred toearlier herein, a magnetic marker is formed by magnetizing a tube diametrally and rotating the magneticaxis progressively in successive cross-sections of thetube along its length, As dosctl'bed-in-the co-pendingapplications, such a magnetic marker acts like amagnetic strip that is twisted lengthwise, An embodiment will now be described in which a twisted magnetictape forms a magnetic marker in association with anelongated object, the@twisting of the tape beingproduced in situ as the object is advanced for burial,Fig* 8 shows a magnetic warning tape 130 beingpulled off of one end of a stationary reel 132 on whichthe tape has been wound in a conventional manner. Dueto the fact that the point at which the tape leaves thereel moves progressively along the circumference of thereel as the tape is pulled from the reel, the tapebecomes twisted lengthwise, as shown. The length ofeach twist segment depends upon the diameter of theturns of tape on the reel, The warning tape may beburied in a trench above a fiber optic cable or duct,for example, as the cable or duct is buried in thetrench.In the case of a warning tape that is totsupported by an elongated object, it is desirable thatthe tape be reinforced to prevent breakage if hooked byearth digging equipment. Thus, as shown in Fig, 9, thetape 130 may comprise a plastic magnetic strip 134formed in a pocket 136 of, and laminated with, aplastic cover 138 having a reinforcing fiber string 140(or strings) with service loops embedded in thematerial of the plastic cover. In this embodiment, theplastic cover (or even the matrix material of the stripin which magnetic particles are distributed) constitutes a substrate for the magnetic material.Figs 10 illustrates a modification of theapparatus shown in Fig. 1, in which magnetic materialis applied as a coating to the outer surface of anextruded plastic tube, A first extruder 142 extrude

s asoft plastic tube 144, which then passes through asizer/cooler 146, as in Fig. 1. A second extruder 148applies a coating of hot melt adhesive to the outersurface of the plastic tube advanced from thesizer/cooler. While the adhesive is still warm andtacky, the adhesive-coated plastic tube passes througha powder application chamber 150 supplied with magneticpowder (e.g., barium ferrite) from a hopper or othersource 152, An ultrasonic agitator 154 forms a cloudor suspension of the magnetic powder in the powderapplication chamber.Magnetic particles adhere to the adhesive as theadhesive-coated plastic tube is advanced through thepowder application chamber, A magnet 156 mounted on asupport rod 158 is inserted into the portion of theplastic tube in the powder application chamber toattract the magnetic particles to the adhesive coatingon the outer surface of the plastic tube, therebyconcentrating the magnetic particles into a substantially continuous surface layer 160. A third extruder162 applies a protective coating 164 of plastic overthe magnetic material, The extruders in Fig, 10 areshown diagrammatically for simplicity, but in practicethey will include the usual components, includingpressurized supplies of the materials to be extruded(e.g., hoppers and extrusion screws, or a metering pumpfor the hot melt adhesive).Although not shown in Fig. 10, a rotatingmagnetizer head may be provided between the powderapplication chamber 150 and the extruder 162 (or afterthe extruder 162) to produce a helical magnetic patternin the magnetic material coating. The magnetic fieldmay be applied across the full width of the plastictube or across only a portion of the width.The apparatus and method illustrated in Fig. 10may be used to provide spaced bar magnets employed insome of the embodiments of the aforesaid S.N. 418r757wherein longitudinally magnetized segments of a plastictube provide a characteristic magnetic signature thatdepends upon the polarity of successive magnetizedsegments, In such embodiments, the magnetic materialmay be applied to the plastic tube periodically (as byperiodic interruption of the supply of

magneticpowder), and the resultant segments of magneticmaterial may be magnetized longitudinally by one ormore magnetizer heads that apply a longitudinalmagnetic field to the segments of magnetic materialwith a polarity appropriate to the desired polarity ofthe magnetized segments.The apparatus shown in Fig. 10 has at least twoadvantages over the modified apparatus of Fige 1 inwhich the second extruder is eliminated and themagnetic material is mixed with the plastic from whichthe tube is extruded, First, it eliminates the need tomix or compound the magnetic material with the plastic,avoiding the difficulty of extruding heavily loadedplastic, Second, it eliminates gaps between magneticparticles, increasing the magnetic strength whileyielding a tube with superior properties.As set forth in the co-pending applications,buried elongated objects provided with magnetic markersin accordance with the invention may be detected by amagnetic field measuring device or gradiemeter, When amagnetic detector is moved over the ground along thelength of the buried object, a unique magnetic fieldsignature is produced comprising a series of positiveand negative excursions (peaks and valleys) in theoutput of the detector, This signature is produced bya helical or twisted permanent magnet pattern (whichcauses the orientation of the magnetic axis to vary),or by the additive/subtractive fields of successivelongitudinally magnetized magnetic segments, and isquite useful in identifying the buried object and indistinguishing the object from other objects, such asferrous gas and water pipes, that produce randompositive and negative excursions. Buried objects, suchas fiber optic cables, are located, traced, andidentified at substantial distances, easily andreliably, by virtue of the magnetic markers of theinvention.While preferred embodiments of the invention havebeen shown and described, it will be apparent to thoseskilled in the art that changes can be made in theseembodiments without departing from the principles andspirit of the invention, the scope of which is definedin the appended claims.The invention claimed is:

1 A method of making,a magnetic marker, compris
ing applying magnetic material to a substrate that iselongated, and forming from said material a helicalpermanent magnet pattern having a helix axis extendingalong the length of said substrate.

2 A method in accordance with Claim 1, wherein
said magnetic material is applied so as to be substantially coextensive with said substrate,3e A method in accordance with Claim 1, wherein1said magnetic material is applied to a portion only ofsaid substrate.

4 A method in accordance with Claim 1, wherein
isaid pattern is formed as alhelical strip magnetized inthe direction of its width.5a A method in accordance with Claim 1, whereinsaid substrate is formed as an extruded tube.6a A method in accordance with Claim 5, whereinsaid magnetic material is applied to said substrate bycoextrusion with said tube.

7 A method in accordance with Claim 5, wherein
said magnetic material is applied to said substrate bymixing the magnetic material with material from whichsaid tube is extruded.

8 Almethod in accordance with Claim 1, wherein
said substrate is formed as a cylinder that is advancedalong its length and wherein said magnetic material isapplied to said substrate from an extruder die havingan outlet that rotates about the axis of said cylinderas the cylinder is advanced along its length.9w A method in accordance with Claim 8, whereinsaid magnetic material is magnetized by a magneticfield that rotates about the axis of said cylinder insynchronism with the rotation of said die,10o A method in accordance with Claim 1, whereinsaid substrate is formed as an extruded cylinder thatadvances along its length and that is taken up byrotation of a take-up spool about a winding axis,wherein said magnetic material is applied to saidcylinder as a strip extending substantially parallel tothe length of the cylinder as the cylinder is extruded,and wherein the strip is thereafter formed into saidhelical pattern by rotating the take-up spool about anaxis substantially perpendicular to said winding axisand substantially parallel to the length of saidcylinder.lie A method in accordance with Claim 1, whereinsaid substrate is formed as a duct.12* A method in accordance with Claim 11, whereina cable is inserted into said duct as the duct isformed,

13 Apparatus for making a magnetic marker,
comprising means for providing a substrate that iselongated, means for applying magnetic material to saidsubstrate, and means for forming from said material ahelical permanent magnet pattern having a helix axisextending along the length of said substrate,U1 -7

14 Apparatus in accordance with Claim 13,

wherein said applying means applies said magneticmaterial so as to be substantially coextensive withsaid substrate,

15 Apparatus in accordance with Claim 13,

wherein said'applying means applies said magneticmaterial to a portion only of said substrate,

16 Apparatus i, n accordance with Claim 13,,

wherein said forming means forms said pattern as ahelical strip magnetized in the direction of its width,

17 Apparatus in accordance with Claim 13,

wherein said providing means provides-said substrate inthe form of an extruded tube,

18 Apparatus in accordance with Claim 17,

wherein said applying means comprises means forcoextruding said magnetic material with said tube.

19 Apparatus in accordance with Claim 17,

wherein said applying means comprises means forapplying said magnetic material mixed with materialfrom which said tube-iis extruded.

20 Apparatus in accordance with Claim 13,

wherein said providing means comprises means forforming said substrate as a cy'linder that is advancedalong its length, and wherein sai&applying meanscomprises an extruder die having an outlet that rotatesabout the axis of said cylinder as the cylinder isadvanced along its length, said magnetic material beingapplied to said cylinder from said outlet,

21 Apparatus in accordance with Claim 20,

wherein said forming means comprises means for magnetizing said magnetic material with a magnetic fieldthat rotates about the axis of said cylinder insynchronism with the rotation of said die.

22 Apparatus in accordance with Claim 13,

wherein said providing means comprises means forextruding said substrate as a cylinder that advancesalong its length and a take-up spool that rotates aböuta winding axis for winding the cylinder thereon,wherein said applying means applies said magneticmaterial to said cylinder as a strip extending substantially parallel to the-axis of the cylinder as thecylinder is extruded, and wherein said forming meanscomprises means for rotating said take-up spool aboutan axis substantially perpendicular to said windingaxis and substantially parallel to the length of saidcylinder.

23 Apparatus in accordance with Claim 13,

wherein said providing means forms said substrate as aduct,

24 Apparatus in accordance with Claim 23,

further comprising means for inserting a cable intosaid duct as the duct is formed.25e A 'method of providing a magnetic marker on anelongated object, comprising advancing said objectlengthwise from a supply reel, and helically winding atransversely magnetized tape about said object as saidobject is advanced.26o A method in-accordance with Claim 25, whereinsaid tape is wound on a tape supply reel through whichsaid object is advanc-ed and is unwound from said tapesupply reel as it is wound helically about said object,27o A method in accordance with Claim 26, whereinsaid tape supply reel is maintained stationary duringthe unwinding of said tape therefrom and wherein thetape is pulled off of an end of said tape supply reelas it is wound about said object.

28 A method in accordance with Claim 26, wherein

said tape supply reel rotates about said elongatedobject as said tape is pulled off of said tape supplyreel, and wherein, as said tape is pulled off of saidtape supply reel, it passes over a tape guide thatrotates about said elongated object as the object isadvanced.29e A method of providing an elongated magneticmarker having a magnetic field that varies along itslength, comprising magnetizing an elongated tapetransverse to its length, and twisting the tapelengthwise.

30 A method in accordance with Claim 29, wherein

the tape is twisted by pulling it off of one end of astationary reel on which the tape is wound.31* A magnetic marker comprising an elongatedflexible strip of magnetic material magnetizedtransverse to its length and twisted lengthwise,

32 A method of making a magnetically marked

plastic tube, comprising inserting a magnet into aplastic tube, providing a suspension of magneticparticles externally of the plastic tube in thevicinity of the magnet, so that the magnetic particlesare attracted to the plastic tube by the field of themagnet, and adhering the attracted magnetic particlesto the outer surface of the tube to form a coating ofmagnetic particles on the outer surface of the tube,33* A method in accordance with Claim 32, whereinthe magnetic particles are adhered to the plastic tubeby an adhesive coating on the outer surface of theplastic tube,34* A method in accordance with Claim 33 furthercomprising applying a protective coating to the coatingof magnetic material,

35 Apparatus for making a plastic tube bearing a

magnetic marker, comprising means for extruding aplastic tube, means for supplying magnetic particles,means for providing a magnetic field that attracts saidmagnetic particles to a surface of the tube, and meansfor adhering the attracted magnetic particles to saidsurface of the tube whereby a coating of magneticparticles is formed on said surface,

36 Apparatus in accordance with Claim 35,

wherein said means for providing said plastic tubecomprises an extruder, said means for providing saidmagnetic field comprises a magnet inserted into saidplastic tube, and said means for providing magneticparticles comprises means for forming a cloud ofmagnetic particles around the exterior of said plastictube,

37 Apparatus in accordance with Claim 36,

wherein said adhering means comprises means for coatingsaid plastic tube with an adhesive.

38 Apparatus in accordance with Claim 36 further

comprising means for forming a protective coating oversaid coating of magnetic particles.

5/7/5 (Item 3 from file: 349)
PCT FULLTEXT

00177413
METHODS AND APPARATUS EMPLOYING PERMANENT MAGNETS FOR MARKING, LOCATING, TRACING AND IDENTIFYING HIDDEN OBJECTS SUCH AS BURIED FIBER OPTIC CABLES
PROCEDES ET APPAREIL EMPLOYANT DES AIMANTS PERMANENTS POUR MARQUER, LOCALISER, SUIVRE ET IDENTIFIER DES OBJETS CACHES TELS QUE DES CABLES A FIBRE OPTIQUE ENTERRES

Patent Applicant/Patent Assignee:

• **SCHONSTEDT INSTRUMENT COMPANY;**
  ; ;

	Country	Number	Kind	Date
Patent	WO	9010879	A1	**19900920**
Application	WO	90US748		19900207
Priorities	US	89860		19890315
	US	89757		19891030

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Main International Patent Classes (Version 7):

IPC	Level
G01V-003/08	Main
G01V-03:165	
F16L-55:00	
H02G-09:00	
H01F-07:02	
Publication Language:	English
Filing Language:	
Fulltext word count:	6366

English Abstract:

In order to locate, trace, and identify hidden elongated objects (12), such as buried fiber optic cables, the objects (12) are provided with elongated permanent magnet identifier devices having magnetic fields that may be detected at a distance from the objects. In one embodiment, the identifier device comprises an elongated strip (10) magnetized in the direction of its width and formed into a long-pitch helix, producing a characteristic "magnetic field signature" that enhances detection and identification of the object, as by a portable gradiometer (14) that is moved over the surface of the earth along a line generally parallel to the length of the object. This embodiment may provide a magnetic field that diminishes as the square of the distance from the identifier device (rather than the usual cube of the distance), thereby enabling detection at substantial distances. In a second embodiment distinctive magnetic field signatures are produced by arrays of spaced permanent magnets (M), the fields of which add and subtract to provide resultant magnetic fields with peaks and valleys along a line generally parallel to the length of the object.

French Abstract:

Afin de localiser, de suivre, et d'indentifier des objets allonges caches (12), tels que des cables a fibre optique enterres, lesdits objets (12) sont munis de dispositifs d'identification a aimants permanents allonges dont les champs magnetiques peuvent etre detectes a une certaine distance desdits objets. Dans un mode de realisation, ledit dispositif d'identification comprend une bande allongee (10) magnetisee dans le sens de sa largeur, et ayant la forme d'une helice a pas long, produisant "une signature de champ magnetique" caracteristique permettant la detection et l'identification de l'objet, a l'aide d'un gradiometre portatif (14) deplace sur la surface de la terre le long d'une ligne sensiblement parallele a la longueur de l'objet. Ce mode de realisation peut produire un champ magnetique diminuant avec le carre de la distance a partir dudit dispositif d'identification (a la place habituellement du cube de la distance), permettant ainsi une detection a des distances importantes. Dans un second mode de realisation des signatures de champ magnetique distinctives sont produites par des reseaux d'aimants permanents espaces (M), dont les champs magnetiques s'additionnent et se soustraient afin de produire des champs magnetiques comportant des sommets et des vallees le long d'une ligne sensiblement parallele a la longueur de l'objet.

Claims:

1 A method of detecting an elongated hidden object, comprising providing on said object anelongated permanent magnet device with its lengthextending along the length of the object and with amagnetic axis transverse to the length of said object,said device having a magnetic field the strength ofwhich diminishes substantially as the square of thedistance from the device along a direction transverseto the length of the object; and detecting saidmagnetic field.2o A method in accordance with Claim 1, whereinsaid device produces a characteristic magnetic fieldsignature and wherein the detecting of said magneticfield detects said signature.3o A method in accordance with Claim 2, whereinsaid device is formed as a helix having a

longitudinalaxis extending along the length of said object.

4 A method in accordance with Claim 3, wherein

said device is formed so that the longitudinal pitch ofsaid helix is substantially greater than the crossdimensions of said helix.5v A method in accordance with Claim 4, whereinsaid device is formed so that said pitch is of theorder of twelve feet.6a A method in accordance with Claim 1, whereinsaid device is formed so that it has a width dimensionsubstantially greater than its thickness dimension andis magnetized in the direction of its width,

7 A method in accordance with claim 6, wherein

said device is formed of a strip of substantially nonconductive material.So A method in accordance with Claim 1, whereinsaid device is attached to a surface of said object,9o A method in accordance with Claim 1, whereinsaid device is incorporated in said object,loo A method in accordance with Claim 1, whereinsaid object is buried beneath the surface of the earthand said detecting comprises moving a magnetic fielddetector over the surface of the earth in the vicinityof the object.llo A meth6d in accordance with Claim 10, whereinsaid detecting comprises moving said detector along aline substantially parallel to the length of saidobject,12a A method in accordance with Claim 1, whereinsaid detecting comprises sensing at least one componentof said magnetic field*13o A method in accordance with Claim 12, whereinsaid detecting comprises indicating variations in saidcomponent.

14 A method of detecting a hidden elongated

object, comprising providing on said object anelongated permanent magnet device having its lengthextending along the length of said object and having a-magnetic axis transverse to the length of said object,said device having a magnetic field that varies in apredetermined manner along the length of said objeclE.-;and detecting said magnetic field.15o A method in accordance with Claim 14, whereinsaid device is formed as a helix having a longitudinalaxis extending along the length of said object, andwherein said device is formed so that the longitudinalpitch of said helix'is substantially greater than thecross dimensions of said helix.

16 A method in accordance with Claim 14, wherein

said device is formed so that it has a width dimensionsubstantially greater than its thickness dimension andis magnetized in the direction of its width.17e A method in accordance with Claim 14, whereinsaid device is formed as a strip of substantially nonconductive material.18a A method in accordance with claim 14, whereinsaid object is buried beneath the surface of the earthand said detecting comprises moving a magnetic fielddetector over the surface of the earth in the vicinityof the object.19a A tracing device for an elongated object,comprising an elongated strip having a width dimensionsubstantially greater than its thickness dimension,said strip being magnetized in the direction of itswidth and being formed into a helix,

20 A device in accordance with Claim 19, wherein

said strip is substantially nonconductive.

21 A device in accordance with Claim 19, wherein

said helix has a longitudinal axis extending along thelength of said object.

22 A device in accordance with Claim 21, wherein

said helix has a longitudinal pitch that issubstantially greater than the cross dimensions of saidhelix.

23 A device in accordance with Claim 22, wherein

said pitch is of the order of twelve feet.

24 A device in accordance with Claim 19, wherein

said strip is attached to a surface of said object.

25 A device in accordance with Claim 19, wherein

said strip is incorporated into said object,

26 In combination with an elongated non-magnetic

object to be detected, an elongated strip on saidobject, said strip having a width dimensionsubstantially greater than its thickness dimension andbeing magnetized in the direction of its width, saidstrip being formed into a helix and having a magneticfield that varies in a predetermined manner along thelength of said object.

27 A combination in accordance with Claim 26,

wherein said helix has a longitudinal pitch that issubstantially greater than the cross dimensions of saidhelix.

28 A combination in accordance with Claim 26,

wherein said pitch is of the order of twelve feet,29a A combination in accordance with Claim 26,wherein said strip is substantially non-conductive,30e A method of detecting a hidden elongatedobject, comprising providing on said object anelongated permanent magnet device having its lengthextending along the length of said object and having amagnetic axis that is transverse to the length of'saidobject and that varies in orientation at differentpositions along the length of said object to provide amagnetic field that varies in a predetermined manneralong the length of said object; and detecting saidmagnetic field.31o A method in accordance with Claim 30, whereinsaid object is buried beneath the surface of the earthand said detecting comprises moving a magnetic fielddetector over the surface of the earth along a linesubstantially parallel to the length of said object.

32 In combination with an elongated non-magnetic
object to be detected, an elongated permanent magnetdevice on said object having its length extending alongthe length of said object, said device having amagnetic axis that is transverse to the length of saidobject and that has different orientations at positionsalong the length of said object.

33 A combination in accordance with Claim 32,
wherein said device is helical and has a helix axisalong the length of said object.

34 A combination in accordance with Claim 32,
wherein said device comprises a plurality of spacedstrips.

35 A combination in accordance with Claim 32,
wherein said device comprises a plurality of spacedtubes.

36 A combination in accordance with Claim 32,
wherein said device comprises a plurality of stripsextending along the length of said object atcircumferentially spaced positions on said object,

37 A combination in accordance with Claim 36,
wherein said positions are also spaced longitudinallyof said object.

38 A combination in accordance with Claim 32,
wherein said device comprises a plurality of tubesspaced along the length of said object and havingcollinear axes parallel to the length of said object,each tube having a magnetic axis transverse to thelength of said object, and the magnetic axes ofsuccessive tubes having different orientations.

39 A combination in accordance with Claim 38,
wherein each tube is defined by a helical strip.

40 A method of locating, tracing, and

identifying a hidden elongated object, comprisingproviding on said object a series of permanent magnets,said series extending along the length of said object,said permanent magnets being constructed and disposed!.so that magnetic fields of successive magnets add orsubtract, producing a resultant magnetic field having apredetermined magnetic field signature including aseries of peaks and valleys at points along a linesubstantially parallel to the length of said object;and locating, tracing,- and identifying said object bymoving a magnetic field detector along said line andproducing an output from said detector corresponding tosaid peaks and valleys.41* A method in accordance with Claim 40, whereinsaid magnets are constructed and disposed so thatmagnetic fields of successive magnets are additive toproduce peaks and/or valleys at points along said lineof greater magnitude than would be produced byindividual magnets.42a A method in accordance with Claim 40, whereinthe output produced from said detector is of the typehaving opposite polarity indications corresponding tosaid peaks and valleys, respectively.

43 In combination with an elongated non-magnetic
object to be detected, a series of spaced permanentmagnets supported on said object and extending alongthe length of said object, said magnets having -magneticaxes parallel to the length of said object and beingconstructed and disposed so that magnetic fields ofsuccessive magnets add or subtract, producing aresultant magnetic field having a

predeterminedmagnetic field signature including a series of peaksand valleys at points along a line substantiallyparallel to the length of said object,

44 A combination in accordance with Claim 43,

wherein some of successive magnets of said series havethe same polarity and others of successive magnets ofsaid series have opposite polarities.

45 A combination in accordance with Claim 43,

wherein successive magnets are constructed and disposedso that magnetic fields thereof are additive to producepeaks and/or valleys along said line of greatermagnitude than would be produced by individual magnets.

46 A method of locating, tracing, and

identifying a plurality of hidden elongated objects,comprising providing on each of said objects acorresponding series of permanent magnets extendingalong the length of-the object, the permanent magnets6- of -each series being constructed and disposed so thatmagnetic fields of successive magnets add or subtract,producing a resultant magnetic field having apredetermined magnetic field signature including aseries of peaks and valleys at points along a linesubstantially parallel to the length of the object,each series of permanent magnets differing from each ofthe other series so that the magnetic field signatureof each series differs from the magnetic fieldsignature of each of the other series; and moving amagnetic field detector along said line and producingan output from said detector corresponding to saidpeaks and valleys. 47* A method of locating, tracing, and identifying a hidden elongated object, comprising providing onsaid object an elongated permanent magnet device havingits length extending along the length of said object,said device producing a magnetic field having apredetermined magnetic field signature including aseries of peaks and valleys at points along a linesubstantially parallel to the length of the object, andmoving a magnetic field detector along said line andproducing an output from said detector corresponding tosaid peaks and valleys.48* A method in accordance with Claim 47, whereinthe output produced from said detector is of the typehaving opposite polarity indications corresponding tosaid peaks and valleys, respectively.

5/7/6 (Item 4 from file: 349)
PCT FULLTEXT
00152086
MAGNETIC LOCATING AND TRACING SYSTEM AND METHOD USING DUAL-ANTENNA TRANSMITTER
SYSTEME MAGNETIQUE DE LOCALISATION ET DE SUIVI, ET PROCEDE UTILISANT UN EMETTEUR A DOUBLE ANTENNE

Patent Applicant/Patent Assignee:

• **SCHONSTEDT INSTRUMENT COMPANY**;

; ;

	Country	Number	Kind	Date
Patent	WO	8808991	A1	19881117
Application	WO	88US1516		19880503
Priorities	US	87463		19870506

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Main International Patent Classes (Version 7):

IPC	Level
G01V-003/08	Main
Publication Language:	English
Filing Language:	
Fulltext word count:	3397

English Abstract:

Locating and tracing of a concealed, elongated, conductive object (C), such as a buried pipe or cable, is enhanced, when a second such object (C') is adjacent to the first (C), by employing a transmitter (T') having a pair of antennae (A, A') that induce distinguishable currents in the respective objects. A receiver (R) movable with respect to the transmitter (T') and with respect to the objects (C, C') produces an output signal dependent upon the sensing of fields associated with both currents. The position of the transmitter (T') relative to the objects (C, C') is adjusted to optimize the output signal.

French Abstract:

La localisation et le suivi d'un objet conducteur cache, allonge (C), tel qu'une canalisation ou un cable enfouis sont ameliores, lorsqu'un second objet similaire (C') est adjacent au premier (C), grace a l'utilisation d'un emetteur (T') ayant une paire d'antennes (A, A') qui induisent des courants pouvant etre distingues dans les objets respectifs. Un recepteur (R) mobile par rapport a l'emetteur (T') et par rapport aux objets (C, C') produit un signal de sortie dependant de la detection de champs associes aux deux courants. La position de l'emetteur (T') par rapport aux objets (C, C') est ajustee pour optimaliser le signal de sortie.

Claims:

11

1. A system for locating at least one of a pair
of concealed, elongated, conductive, adjacent objects,comprises, in combination, a transmitter and areceiver, said transmitter having means including apair of antennae for inducing a pair of distinguishablalternating currents in said objects, respectively,said receiver being movable relative to said transmitter and to said objects, having means for sensingmagnetic fields associated with said currents, respectively, and having means for producing an output signadependent upon the sensing of both of said fields.
2. A system in accordance with Claim 1, wherein
said currents have different carrier frequencies.
3. A system in accordance with Claim 1, wherein
said currents are pulsed at different pulsation rates.
4. A system in accordance with Claim 1, wherein
said currents have the same carrier frequency butdifferent modulation frequencies.
5. A system in accordance with Claim 1, wherein
said output signal producing means comprises means forproducing a beat frequency signal related to saidcurrents.
6. A system in accordance with Claim 1, wherein
said antennae are separated horizontally by about 3-5feet.`b12
7. A system in accordance with Claim 1, wherein
said sensing means comprises a coil for sensing both ofsaid magnetic fields and for producing a combinedsignal, and wherein said output signal producing meansproduces said output signal only when said combinedsignal is present.

8. A system in accordance with Claim 7, wherein
said currents have different carrier frequencies andsaid combined signal has components corresponding tosaid different carrier frequencies, respectively, andwherein said output signal producing means produces abeat frequency signal from said components.

9. A system in accordance with Claim 7, wherein
said currents have different pulsation rates and saidcombined signal has components corresponding to saiddifferent pulsation rates, respectively, and whereinsaid output signal producing means produces a beatfrequency signal from said components.

10. A system in accordance with Claim 7, wherein
said currents have different modulation frequencies andsaid combined signal has components corresponding tosaid different modulation frequencies, respectively,and wherein said output signal producing means producesa beat frequency signal from said components.- 11. A method of locating at least one of a pairof concealed, elongated, conductive, adjacent objects,comprising, producing in said objects a pair ofdistinguishable alternating currents, respectively,moving with respect to said objects a receiver sensitive to a pair of magnetic fields associated with said13currents, respectively, and producing an output signalfrom said receiver dependent upon the sensing by saidreceiver of both of said fields.

12. A method in accordance with Claim 11, wherein
said output signal is produced in response to a beatfrequency signal generated by the sensing of both ofsaid magnetic fields.

13. A method in accordance with Claim 11, wherein
said currents are induced in said objects by a pair ofantennae.

14. A method in accordance with Claim 11, wherein
said currents have different carrier frequencies.

15. A method in accordance with Claim 11, wherein
said currents are pulsed at different pulsation rates.

16. A method in accordance with Claim 11, wherein
said currents have the same carrier frequency modulateat different frequencies.

17. A method in accordance with Claim 11, wherein
said currents are induced in said objects by a transmitter that is positioned over said objects and that iprovided with a pair of spaced antennae and whereinsaid receiver is moved relative to said transmitter.

18. A method in accordance with Claim 17, wherein
the position of said transmitter relative to saidV 3 objects is adjusted to optimize the sensing of saidfields by said receiver.14

19. A method in accordance with Claim 11, wherein
said receiver is moved back and forth transversely ofsaid objects and is also moved longitudinally of saidobjects.

20. A method in accordance with Claim 19, wherein
said output signal from said receiver is produced bysensing said magnetic fields in a sensor coil, producing a combined signal from said coil that includescomponents corresponding to said magnetic fields, andproducing a beat frequency signal from said components

21. A method in accordance with Claim 20, wherein
said components have different carrier frequencies.

22. A method in accordance with claim 20, wherein
said components have different pulsation rates.

23. A method in accordance with Claim 20, wherein
said components have different modulation frequencies.

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?  s (transaction(w)process???)

Processing

Processing

Processing

Processing

        3636556    TRANSACTION

       23606096    PROCESS???

S6      239338     S (TRANSACTION(W)PROCESS???)


?  d s

Set      Items    Description

S1           8    S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE)(2N)RIPPINGALE))

S2          .2    S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN)(2N)POTTISH))

S3   100051618    S PD<20020627

S4           6    S S3 AND (S1 OR S2)

S5           6    RD  (unique items)

S6      239338    S (TRANSACTION(W)PROCESS???)


?  s client(w)server

Processing

        3661247    CLIENT

        2395641    SERVER

S7      432902     S CLIENT(W)SERVER


?  s client-server

S8         128     S CLIENT-SERVER


?  s (heavy or fat)(w)client

Processing

        4200035    HEAVY

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        3661247    CLIENT
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S10       3407    S (HEAVY OR FAT)(2N)SERVER? ?


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S11       8366    S (HEAVY OR FAT)(2N)CLIENT? ?


?   s client-in-charge
S12          0    S CLIENT-IN-CHARGE


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            128   S8
           3407   S10
           8366   S11
S13       2762    S (S7 OR S8)AND (S10 OR S11)


?   s transaction(n)process???
Processing
Processing
Processing
Processing
        3636556   TRANSACTION
       23606096   PROCESS???
S14     241015    S TRANSACTION(N)PROCESS???
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?  s s13 and s14

           2762    S13

         241015    S14

S15        354    S S13 AND S14


?  d s

Set      Items    Description

S1           8    S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE)(2N)RIPPINGALE))

S2           2    S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN)(2N)POTTISH))

S3   100051618    S PD<20020627

S4           6    S S3 AND (S1 OR S2)

S5           6    RD  (unique items)

S6      239338    S (TRANSACTION(W)PROCESS???)

S7      432902    S CLIENT(W)SERVER

S8         128    S CLIENT-SERVER

S9        3810    S (HEAVY OR FAT)(W)CLIENT

S10       3407    S (HEAVY OR FAT)(2N)SERVER? ?

S11       8366    S (HEAVY OR FAT)(2N)CLIENT? ?

S12          0    S CLIENT-IN-CHARGE

S13       2762    S (S7 OR S8)AND (S10 OR S11)

S14     241015    S TRANSACTION(N)PROCESS???

S15        354    S S13 AND S14


?  s batch$$$

S16          0    S BATCH$$$


?  s batch???

S17     655132    S BATCH???


?  s aggregat???

S18    1512741    S AGGREGAT???


?  s accumulat???
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S19    1587922    S ACCUMULAT???


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Processing
Processing
Processing
Processing
Processing
       14391710    REDUC???
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         230316    WORKLOAD
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        4095528    LOAD???
S20     280938    S (REDUC??? OR MINIMIZ??? OR MINIMAL)(5N)(WORKLOAD OR TRAFFIC OR LOAD???)


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S1           8    S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE)(2N)RIPPINGALE))
S2           2    S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN)(2N)POTTISH))
S3   100051618    S PD<20020627
S4           6    S S3 AND (S1 OR S2)
S5           6    RD   (unique items)
S6      239338    S (TRANSACTION(W)PROCESS???)
S7      432902    S CLIENT(W)SERVER
S8         128    S CLIENT-SERVER
S9        3810    S (HEAVY OR FAT)(W)CLIENT
S10       3407    S (HEAVY OR FAT)(2N)SERVER? ?
S11       8366    S (HEAVY OR FAT)(2N)CLIENT? ?
S12          0    S CLIENT-IN-CHARGE
S13       2762    S (S7 OR S8)AND (S10 OR S11)
S14     241015    S TRANSACTION(N)PROCESS???
S15        354    S S13 AND S14
S16          0    S BATCH$$$
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S18   1512741   S AGGREGAT???

S19   1587922   S ACCUMULAT???

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? s s15 and s20

          354   S15

       280938   S20

S21   56   S S15 AND S20

? rd

>>>W: Duplicate detection is not supported for File 348.

Duplicate detection is not supported for File 349.

Duplicate detection is not supported for File 347.

Records from unsupported files will be retained in the RD set.

S22   49   RD (UNIQUE ITEMS)

? t s49/free/all

>>>E: Set 49 does not exist

? t s21/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

21/8/1 (Item 1 from file: 15)
ABI/Inform(R)

02927967   860346231
          USE FORMAT 7 OR 9 FOR FULL TEXT
An Analysis of the Effects of Continuous Monitoring Controls on e-Commerce System Performance
  Word Count: 7683 Length: 19 Pages
Fall 2004

Descriptors: Information systems; Studies; Electronic commerce; Online **transaction processing**; Systems
management
Classification Codes: 9130 (CN=Experimental/Theoretical); 5220 (CN=Information technology management)
Print Media ID: 54038

21/8/2 (Item 2 from file: 15)
ABI/Inform(R)
01545890   01-96878
          USE FORMAT 7 OR 9 FOR FULL TEXT
Deploying enterprise intranets
  Word Count: 4320 Length: 9 Pages
Jan 1998
Geographic Names: US

Descriptors: World Wide Web; MIS; Java; Technological change; Effects; Intranets
Classification Codes: 9190 (CN=United States); 5220 (CN=Data processing management); 5250 (CN=Telecommunications systems)

21/8/3 (Item 3 from file: 15)
ABI/Inform(R)
01511964   01-62952
          USE FORMAT 7 OR 9 FOR FULL TEXT
Inside Web app functioning
  Word Count: 4056 Length: 7 Pages
Sep 29, 1997
Geographic Names: US

Descriptors: Distributed processing ; Network topologies; Guidelines; Internet; **Client server** computing; Object oriented programming; Middleware; Technological planning
Classification Codes: 9190 (CN=United States); 5220 (CN=Data processing management); 5240 (CN=Software & systems); 9150 (CN=Guidelines)

21/8/4 (Item 4 from file: 15)
ABI/Inform(R)
01095958   97-45352
          USE FORMAT 7 OR 9 FOR FULL TEXT
Oracle exec gives glimpse into company's future
  Word Count: 732 Length: 2 Pages
Sep 18, 1995
Company Names:
Oracle Corp (Duns: 08-995-8862)
Geographic Names: US

Descriptors: Case studies; Software industry; Market strategy; Product development
Classification Codes: 9110 (CN=Company specific); 8302 (CN=Software and computer services); 7000

(CN=Marketing); 9190 (CN=United States)

21/8/5 (Item 5 from file: 15)
ABI/Inform(R)
00816196   94-65588
                USE FORMAT 7 OR 9 FOR FULL TEXT
Benefits and barriers to client/server computing
  Word Count: 3838 Length: 7 Pages
Feb 1994
Geographic Names: US

Descriptors: Client server computing; Advantages; Disadvantages; Implementations
Classification Codes: 9190 (CN=United States); 5250 (CN=Telecommunications systems)

21/8/6 (Item 1 from file: 275)
Gale Group Computer DB(TM)
02327277   **Supplier Number: 55622138 (Use Format 7 Or 9 For** FULL TEXT)
Lesson 134: Middleware.(various middleware offerings)(Technology Information)

Sept 1 , 1999
Word Count: 2333   **Line Count:** 00195
Geographic Codes/Names: 1USA United States
Descriptors: Middleware; Technology overview
File Segment: CD File 275

21/8/7 (Item 2 from file: 275)
Gale Group Computer DB(TM)
02095878   **Supplier Number: 19690064 (Use Format 7 Or 9 For** FULL TEXT)
Uniting object-oriented and distributed systems. (Technology Information)

July , 1997
Word Count: 5206   **Line Count:** 00426
Descriptors: Technology Overview; Application Development Software; Object-Oriented Programming
Product/Industry Names: 7372513 (Application Development Software)
SIC Codes: 7372 Prepackaged software
Trade Names: PowerBuilder (Application development software)--Usage
File Segment: CD File 275

21/8/8 (Item 3 from file: 275)

Gale Group Computer DB(TM)
02012171   **Supplier Number: 18862114 (Use Format 7 Or 9 For** FULL TEXT)
Integrating the Web with SNA host environments. (Technology Information)

Nov , 1996
Word Count: 7179   Line Count: 00590

Special Features: illustration; chart
Descriptors: Internet/Web Technology; SNA; System Conversion
File Segment: CD File 275

21/8/9 (Item 4 from file: 275)
Gale Group Computer DB(TM)
01941532   **Supplier Number: 18303694 (Use Format 7 Or 9 For** FULL TEXT)
Performance monitoring in a client/server environment. (Technology Information)

May , 1996
Word Count: 3415   Line Count: 00280

Special Features: illustration; chart
Descriptors: Technology Overview; **Client/Server** Architecture; Performance Analysis/Diagnostic Software
File Segment: CD File 275

21/8/10 (Item 5 from file: 275)
Gale Group Computer DB(TM)
01844986   **Supplier Number: 17558129 (Use Format 7 Or 9 For** FULL TEXT)
**Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights, benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps")
(Software Review)(Evaluation)**

Oct 24 , 1995
Word Count: 4916   Line Count: 00402

Special Features: illustration; photograph; table; chart; graph
Company Names: Microsoft Corp.--Products
Descriptors: Network Operating System; Software Multiproduct Review
SIC Codes: 7372 Prepackaged software
Ticker Symbols: MSFT
Trade Names: Microsoft Windows NT Server 3.5 (Network operating system)--Evaluation
File Segment: CD File 275

21/8/11 (Item 6 from file: 275)
Gale Group Computer DB(TM)
01801030   **Supplier Number: 17162448 (Use Format 7 Or 9 For** FULL TEXT)
The right cut.(spltting applications)(Client/Server Deployment)

June 26 , 1995
Word Count: 1347   Line Count: 00109
Descriptors: Client/server architecture; Industry Trend
File Segment: CD File 275

21/8/12 (Item 7 from file: 275)
Gale Group Computer DB(TM)
01671064   **Supplier Number: 15064634 (Use Format 7 Or 9 For** FULL TEXT)
Benefits and barriers to client/server computing. (IS Management)

Feb , 1994
Word Count: 4142   Line Count: 00360
Descriptors: Client/server architecture; System Conversion; Trends; Management of EDP
File Segment: TI File 148

21/8/13 (Item 8 from file: 275)
Gale Group Computer DB(TM)
01517432   **Supplier Number: 12227070 (Use Format 7 Or 9 For** FULL TEXT)
The goal: a real network. (how the testing methodology for the servers was created; includes related article on Structured Query Language Statements) (What's the Right Size?)

June-July , 1992
Word Count: 2878   Line Count: 00208

Special Features: illustration; chart
Descriptors: Testing; DBMS; Methods; Validation; Superserver; Minicomputer; File Server; Design; Performance Measurement
SIC Codes: 3571 Electronic computers; 7372 Prepackaged software
Trade Names: Oracle (Database application development software)--Usage
File Segment: CD File 275

21/8/14 (Item 9 from file: 275)
Gale Group Computer DB(TM)
·01465219   **Supplier Number: 11636362 (Use Format 7 Or 9 For** FULL TEXT)

Give LAN throughput a boost with multiprocessing servers. (local area network superservers) (Buyers Guide)

Dec , 1991
Word Count: 4827   **Line Count:** 00397

Special Features: illustration; chart; table
Descriptors: File Server; Multiprocessing; LAN; Performance Improvement; Superserver; System Design; Purchases
SIC Codes: 3571 Electronic computers
File Segment: CD File 275

21/8/15 (Item 1 from file: 621)
Gale Group New Prod.Annou.(R)

01361931   **Supplier Number:** 46252533 (USE FORMAT 7 FOR FULLTEXT)
IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ/OBJECTS AND IQ/SMARTSERVER FOR SYBASE IQ

March 26 , 1996
Word Count: 651
Publisher Name: PR Newswire Association, Inc.
Company Names: *IQ Software Corp.; Sybase Inc.
Event Names: *380 (Strategic alliances)
Geographic Names: *1USA (United States)
Product Names: *7372420 (Database Software)
Industry Names: BUS (Business, General); BUSN (Any type of business)
NAICS Codes: 51121 (Software Publishers)
Ticker Symbols: IQSW; SYBS

21/8/16 (Item 1 from file: 813)
PR Newswire

0928824   ATTU007
IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ OBJECTS AND IQ SMARTSERVER FOR SYBASE IQ

Date: March 26, 1996
Word Count: 628

Company Name: IQ SOFTWARE CORPORATION; SYBASE, INC.
Ticker Symbol: IQSW (NDQ)
Product: COMPUTER, ELECTRONICS (CPR)
State: GEORGIA (GA)

Section Heading: BUSINESS; TECHNOLOGY

21/8/17 (Item 1 from file: 16)
Gale Group PROMT(R)
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05257576   **Supplier Number: 48011956 (USE FORMAT 7 FOR FULLTEXT)**

Inside Web App Functioning -- The right hardware and best allocation help get the most out of your system
Sept 29 , 1997
Word Count: 4394
Publisher Name: CMP Publications, Inc.
Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *7372600 (Computer Network & Communications Software); 3573000 (Computers & Peripherals)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); TELC (Telecommunications)
NAICS Codes: 51121 (Software Publishers); 334111 (Electronic Computer Manufacturing)
Special Features: LOB

21/8/18 (Item 2 from file: 16)

Gale Group PROMT(R)
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05214120   **Supplier Number: 47953477 (USE FORMAT 7 FOR FULLTEXT)**

Client/Server Versus Web Server Development
Sept 1 , 1997
Word Count: 2012
Publisher Name: CMP Publications, Inc.
Event Names: *350 (Product standards, safety, & recalls)
Geographic Names: *1USA (United States)
Product Names: *7372620 (Network Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers)

21/8/19 (Item 3 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
05032010   **Supplier Number: 47387887 (USE FORMAT 7 FOR FULLTEXT)**

Web Middleware Glue Binds Web Apps
May 15 , 1997

Word Count: 3921
Publisher Name: CMP Publications, Inc.
Event Names: *330 (Product information)
Geographic Names: *1USA (United States)
Product Names: *7372660 (Computer Data Communications Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers)

21/8/20 (Item 4 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
04875733   **Supplier Number: 47172243 (USE FORMAT 7 FOR FULLTEXT)**

Building The Internetwork: The basic components are the same, but the options are many. Here's how to hit the bull's-eye with your internetworking solution.
March 1 , 1997
Word Count: 3415
Publisher Name: CMP Publications, Inc.
Event Names: *260 (General services)
Geographic Names: *1USA (United States)
Product Names: *7372612 (Network Configuration Management Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers)

21/8/21 (Item 5 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
04268079   **Supplier Number: 46252533 (USE FORMAT 7 FOR FULLTEXT)**

IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ/OBJECTS AND IQ/SMARTSERVER FOR SYBASE IQ
March 26 , 1996
Word Count: 651
Publisher Name: PR Newswire Association, Inc.
Company Names: *IQ Software Corp.; Sybase Inc.
Event Names: *380 (Strategic alliances)
Geographic Names: *1USA (United States)
Product Names: *7372420 (Database Software)
Industry Names: BUS (Business, General); BUSN (Any type of business)
NAICS Codes: 51121 (Software Publishers)
Ticker Symbols: IQSW; SYBS
Special Features: COMPANY

21/8/22 (Item 6 from file: 16)

Gale Group PROMT(R)

03905219   **Supplier Number: 45629582 (USE FORMAT 7 FOR FULLTEXT)**

The right cut
June 26 , 1995
Word Count: 1254
Publisher Name: Ziff-Davis Publishing Company
Event Names: *220 (Strategy & planning)
Geographic Names: *1USA (United States)
Product Names: *3573120 (Microcomputers)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 334111 (Electronic Computer Manufacturing)

21/8/23 (Item 1 from file: 148)
Gale Group Trade & Industry DB
10046785   **Supplier Number: 20347300 (USE FORMAT 7 OR 9 FOR FULL TEXT)**
Magic works, and costs.(Magic Software Enterprises Magic 8.0) (Software Review)(Evaluation)

Feb 23 , 1998
Word Count: 609   **Line Count:** 00055
Company Names: Magic Software Enterprises--Products
Industry Codes/Names: BUSN Any type of business; CMPT Computers and Office Automation
Descriptors: Data base management systems--Evaluation
Product/Industry Names: 7372421 (DBMS)
Product/Industry Names: 7372 Prepackaged software
Trade Names: Magic Software Enterprises Magic 8.0 (DBMS)--Evaluation
File Segment: CD File 275

21/8/24 (Item 2 from file: 148)
Gale Group Trade & Industry DB
09787776   **Supplier Number: 19802329 (USE FORMAT 7 OR 9 FOR FULL TEXT)**
Inside Web app functioning. (Internet/Web/Online Service Information)

Sep 29 , 1997
Word Count: 4691   **Line Count:** 00380

Special Features: table; illustration
Industry Codes/Names: BUSN Any type of business; CMPT Computers and Office Automation; TELC
Telecommunications
Descriptors: World Wide Web--Computer programs
Product/Industry Names: 4811500 (Specialized Telecommunication Services)
Product/Industry Names: 4822 Telegraph & other communications

21/8/25 (Item 3 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
09363300   **Supplier Number:** 19219116 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Building the internetwork. (includes related articles on intranet security and Gigabit Ethernet)(VAR Strategy Guide: Internetworking) (Industry Trend or Event)

March 1 , 1997
Word Count: 3543   **Line Count:** 00308

Special Features: illustration; table; graph
Industry Codes/Names: CMPT Computers and Office Automation; BUSN Any type of business
Descriptors: Computer networks--Planning; Value-added resellers--Planning
Product/Industry Names: 1623210 (Communications Construction); 3662100 (Communications Equipment ex Broadcast)
Product/Industry Names: 1620 Heavy Construction, Except Highway; 3660 Communications Equipment
File Segment: CD File 275

21/8/26 (Item 4 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
08552356   **Supplier Number:** 18130466 (USE FORMAT 7 OR 9 FOR FULL TEXT)
IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ/OBJECTS AND IQ/SMARTSERVER FOR SYBASE IQ

March 26 , 1996
Word Count: 669   **Line Count:** 00064
Company Names: IQ Software Corp.--Product introduction; Sybase Inc.--Products
Industry Codes/Names: BUS Business, General
Descriptors: Computer software industry--Product introduction
Product/Industry Names: 7372203 (Database Mgmt Software Pkgs); 7372620 (Networking Software Pkgs)
Product/Industry Names: 7372 Prepackaged software
Ticker Symbols: IQSW; SYBS; IQSW
File Segment: NW File 649

21/8/27 (Item 5 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
08508355   **Supplier Number:** 18062147 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Migration made easier: tech managers are navigating the transition to large online transaction processing, client-server applications. (Technology Information)

March 4 , 1996
Word Count: 3192 **Line Count:** 00290

Special Features: illustration; graph
Industry Codes/Names: CMPT Computers and Office Automation
Descriptors: Client/server architecture--Usage
Product/Industry Names: 7372000 (Computer Software)
Product/Industry Names: 7372 Prepackaged software
File Segment: CD File 275

21/8/28 (Item 6 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
07960068   **Supplier Number:** 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The right cut.(spltting applications)(Client/Server Deployment)

June 26 , 1995
Word Count: 1347 **Line Count:** 00109
Industry Codes/Names: CMPT Computers and Office Automation
Descriptors: Client/server architecture--Programming; Programming (Computers)--Technique
File Segment: CD File 275

21/8/29 (Item 7 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
07201352   **Supplier Number:** 15064634 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Benefits and barriers to client/server computing. (IS Management)

Feb , 1994
Word Count: 4142 **Line Count:** 00360
Industry Codes/Names: BUS Business, General; CMPT Computers and Office Automation
Descriptors: Client/server architecture--Usage; Computer system conversion --Management
File Segment: TI File 148

21/8/54 (Item 1 from file: 635)
Business Dateline(R)
(c) 2007 ProQuest Info&Learning. All rights reserved.
0686369 96-43616
IQ Software announces the availability of IQ/Objects and IQ/SmartServer for Sybase IQ

Publication Date: 960326
Word Count: 573
Dateline: Atlanta, GA, US, South Atlantic

Company Names: IQ Software Corp, Atlanta, GA, US, SIC:7372,
Classification Codes: 8302 (Software and computer services); 7500 (Product planning & development)
Descriptors: Software industry; Product introduction

21/8/55 (Item 1 from file: 47)
Gale Group Magazine DB(TM)
(c) 2007 The Gale group. All rights reserved.
04346728   **Supplier Number: 17558129 (USE FORMAT 7 OR 9 FOR FULL TEXT)**
**Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights,
benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating
systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps")
(Software Review)(Evaluation)**

Oct 24 , 1995
Word Count: 4916   **Line Count:** 00402

Special Features: illustration; photograph; table; chart; graph
Company Names: Microsoft Corp.--Products
Descriptors: Network operating systems--Evaluation
SIC Codes: 7372 Prepackaged software
Ticker Symbols: MSFT
Trade Names: Microsoft Windows NT Server 3.5 (Network operating system)--Evaluation
File Segment: CD File 275

21/8/56 (Item 2 from file: 47)
Gale Group Magazine DB(TM)
(c) 2007 The Gale group. All rights reserved.
04276942   **Supplier Number: 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT)**
The right cut.(spltting applications)(Client/Server Deployment)

June 26 , 1995
Word Count: 1347   **Line Count:** 00109
Descriptors: Client/server architecture--Programming; Programming (Computers)--Technique
File Segment: CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

21/8/54 (Item 1 from file: 635)
Business Dateline(R)
(c) 2007 ProQuest Info&Learning. All rights reserved.
0686369   96-43616
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(c) 2007 The Gale group. All rights reserved.
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Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights, benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps") (Software Review)(Evaluation)

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Descriptors: Network operating systems--Evaluation
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Ticker Symbols: MSFT
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File Segment: CD File 275

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Gale Group Magazine DB(TM)
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04276942   Supplier Number: 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The right cut.(spltting applications)(Client/Server Deployment)

June 26 , 1995
Word Count: 1347   **Line Count:** 00109
Descriptors: Client/server architecture--Programming; Programming (Computers)--Technique
File Segment: CD File 275

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File Segment: CD File 275

21/8/56 (Item 2 from file: 47)
Gale Group Magazine DB(TM)
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The right cut.(spltting applications)(Client/Server Deployment)

June 26 , 1995
Word Count: 1347   **Line Count:** 00109
Descriptors: Client/server architecture--Programming; Programming (Computers)--Technique
File Segment: CD File 275

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Word Count: 573
Dateline: Atlanta, GA, US, South Atlantic

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Classification Codes: 8302 (Software and computer services); 7500 (Product planning & development)
Descriptors: Software industry; Product introduction

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Oct 24 , 1995
Word Count: 4916   **Line Count:** 00402

Special Features: illustration; photograph; table; chart; graph
Company Names: Microsoft Corp.--Products
Descriptors: Network operating systems--Evaluation
SIC Codes: 7372 Prepackaged software
Ticker Symbols: MSFT
Trade Names: Microsoft Windows NT Server 3.5 (Network operating system)--Evaluation
File Segment: CD File 275

21/8/56 (Item 2 from file: 47)
Gale Group Magazine DB(TM)
04276942   Supplier Number: 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The right cut.(spltting applications)(Client/Server Deployment)

June 26 , 1995
Word Count: 1347   **Line Count:** 00109
Descriptors: Client/server architecture--Programming; Programming (Computers)--Technique

File Segment: CD File 275

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>>>W:   "FREE" is not a valid format name in file(s): 347-349
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21/8/54 (Item 1 from file: 635)
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Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights, benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps") (Software Review)(Evaluation)

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Descriptors: Network operating systems--Evaluation
SIC Codes: 7372 Prepackaged software

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June 26 , 1995
Word Count: 1347   **Line Count:** 00109
Descriptors: Client/server architecture--Programming; Programming (Computers)--Technique
File Segment: CD File 275


```
>>>W:   "FREE" is not a valid format name in file(s): 347-349
```

21/8/54 (Item 1 from file: 635)
Business Dateline(R)
(c) 2007 ProQuest Info&Learning. All rights reserved.
0686369   96-43616
IQ Software announces the availability of IQ/Objects and IQ/SmartServer for Sybase IQ ,

Publication Date: 960326
Word Count: 573
Dateline: Atlanta, GA, US, South Atlantic

Company Names: IQ Software Corp, Atlanta, GA, US, SIC:7372,
Classification Codes: 8302 (Software and computer services); 7500 (Product planning & development)
Descriptors: Software industry; Product introduction

21/8/55 (Item 1 from file: 47)
Gale Group Magazine DB(TM)
(c) 2007 The Gale group. All rights reserved.
04346728   **Supplier Number:** 17558129 (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights,
benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating
systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps")
(Software Review)(Evaluation)**

Oct 24 , 1995
Word Count: 4916   **Line Count:** 00402

Special Features: illustration; photograph; table; chart; graph

Company Names: Microsoft Corp.--Products
Descriptors: Network operating systems--Evaluation
SIC Codes: 7372 Prepackaged software
Ticker Symbols: MSFT
Trade Names: Microsoft Windows NT Server 3.5 (Network operating system)--Evaluation
File Segment: CD File 275

21/8/56 (Item 2 from file: 47)
Gale Group Magazine DB(TM)
(c) 2007 The Gale group. All rights reserved.
04276942   **Supplier Number:** 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The right cut.(spltting applications)(Client/Server Deployment)

June 26 , 1995
Word Count: 1347   **Line Count:** 00109
Descriptors: Client/server architecture--Programming; Programming (Computers)--Technique
File Segment: CD File 275


```
?   d s

Set      Items     Description

S1           8     S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE)(2N)RIPPINGALE))

S2           2     S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN)(2N)POTTISH))

S3   100051618     S PD<20020627

S4           6     S S3 AND (S1 OR S2)

S5           6     RD  (unique items)

S6      239338     S (TRANSACTION(W)PROCESS???)

S7      432902     S CLIENT(W)SERVER

S8         128     S CLIENT-SERVER

S9        3810     S (HEAVY OR FAT)(W)CLIENT

S10       3407     S (HEAVY OR FAT)(2N)SERVER? ?

S11       8366     S (HEAVY OR FAT)(2N)CLIENT? ?

S12          0     S CLIENT-IN-CHARGE

S13       2762     S (S7 OR S8)AND (S10 OR S11)

S14     241015     S TRANSACTION(N)PROCESS???

S15        354     S S13 AND S14

S16          0     S BATCH$$$
```

```
S17      655132    S BATCH???

S18     1512741    S AGGREGAT???

S19     1587922    S ACCUMULAT???

S20      280938    S (REDUC??? OR MINIMIZ??? OR MINIMAL)(5N)(WORKLOAD OR TRAFFIC OR LOAD???)

S21          56    S S15 AND S20

S22          49    RD  (unique items)


?  s s22 and (s17 or s18 or s19)

            49    S22

        655132    S17

       1512741    S18

       1587922    S19

S23          29    S S22 AND (S17 OR S18 OR S19)


?  t s23/free/all
>>>W:  "FREE" is not a valid format name in file(s): 347-349
```

23/8/1 (Item 1 from file: 15)
ABI/Inform(R)

02927967   860346231
USE FORMAT 7 OR 9 FOR FULL TEXT
An Analysis of the Effects of Continuous Monitoring Controls on e-Commerce System Performance
  Word Count: 7683 Length: 19 Pages
Fall 2004

Descriptors: Information systems; Studies; Electronic commerce; Online **transaction processing**; Systems management
Classification Codes: 9130 (CN=Experimental/Theoretical); 5220 (CN=Information technology management)
Print Media ID: 54038

23/8/2 (Item 1 from file: 275)
Gale Group Computer DB(TM)
01517432   **Supplier Number:** 12227070 (Use Format 7 Or 9 For FULL TEXT)
The goal: a real network. (how the testing methodology for the servers was created; includes related article on Structured Query Language Statements) (What's the Right Size?)

June-July , 1992
Word Count: 2878   Line Count: 00208

Special Features: illustration; chart
Descriptors: Testing; DBMS; Methods; Validation; Superserver; Minicomputer; File Server; Design; Performance Measurement
SIC Codes: 3571 Electronic computers; 7372 Prepackaged software
Trade Names: Oracle (Database application development software)--Usage
File Segment: CD File 275

23/8/3 (Item 1 from file: 16)
Gale Group PROMT(R)
(c) 2007 The Gale Group. All rights reserved.
04875733   **Supplier Number: 47172243 (USE FORMAT 7 FOR FULLTEXT)**

Building The Internetwork: The basic components are the same, but the options are many. Here's how to hit the bull's-eye with your internetworking solution.
March 1 , 1997
Word Count: 3415
Publisher Name: CMP Publications, Inc.
Event Names: *260 (General services)
Geographic Names: *1USA (United States)
Product Names: *7372612 (Network Configuration Management Software)
Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation)
NAICS Codes: 51121 (Software Publishers)

23/8/4 (Item 1 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
10046785   **Supplier Number: 20347300 (USE FORMAT 7 OR 9 FOR FULL TEXT)**
Magic works, and costs.(Magic Software Enterprises Magic 8.0) (Software Review)(Evaluation)

Feb 23 , 1998
Word Count: 609   **Line Count:** 00055
Company Names: Magic Software Enterprises--Products
Industry Codes/Names: BUSN Any type of business; CMPT Computers and Office Automation
Descriptors: Data base management systems--Evaluation
Product/Industry Names: 7372421 (DBMS)
Product/Industry Names: 7372 Prepackaged software
Trade Names: Magic Software Enterprises Magic 8.0 (DBMS)--Evaluation
File Segment: CD File 275

23/8/5 (Item 2 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.
09363300   **Supplier Number: 19219116 (USE FORMAT 7 OR 9 FOR FULL TEXT)**
Building the internetwork. (includes related articles on intranet security and Gigabit Ethernet)(VAR Strategy

Guide: Internetworking) (Industry Trend or Event)

March 1 , 1997
Word Count: 3543   **Line Count:** 00308

Special Features: illustration; table; graph
Industry Codes/Names: CMPT Computers and Office Automation; BUSN Any type of business
Descriptors: Computer networks--Planning; Value-added resellers--Planning
Product/Industry Names: 1623210 (Communications Construction); 3662100 (Communications Equipment ex Broadcast)
Product/Industry Names: 1620 Heavy Construction, Except Highway; 3660 Communications Equipment
File Segment: CD File 275

```
>>>W:   "FREE" is not a valid format name in file(s): 347-349
```

```
?   t s23/k/3
```

23/K/3 (Item 1 from file: 16)
Gale Group PROMT(R)

```
...to accommodate such applications.
     A wide range of applications are specific to given industries: online
transaction processing (OLTP) for financial services firms,
CAD/CAM for engineering companies, statistical modeling for insurance
companies...

...data resided on the central host, with desktop devices providing nothing
more than display capability.
     Client-Server
     Today's networks are designed to distribute intelligence across the
network, using CPUs that offer a previously inconceivable MIPS-to-dollar
```

```
ratio. This client-server architecture allows users to run
powerful desktop applications locally, while data and more CPU-intensive
processes run on larger, shared machines.
     Document imaging is a particularly good example of how client-
server architecture can leverage the best of both platforms. In such
applications, a heavy-duty server shoulders the
processing-intensive tasks of image retrieval and indexing, while the
desktop supports presentation functions such as scrolling, magnification
and data indexing.
     Client-server architecture has also led to the use of
special function boxes, which can be shared...
...some cases, data and application/business logic run on two different
platforms. For example, a transaction processing application
```

may use data residing on a mainframe host, while the data gets "crunched"
on...

...providing access to the application running on a Windows desktop. This
type of "three-tiered" **client-server** architecture is
particularly appropriate for situations in which large volumes of legacy
data make it...

...cost-effectiveness and flexibility of a midrange platform are too
compelling to decline.
     While the **client-server** model is far from obsolete, its
limitations have become evident over time. As different types...

...of PC on the desktop becomes irrelevant. This is a godsend for companies
that have **accumulated** Macs and Unix workstations, and Intel-based
machines running Windows and OS/2. The ability...percent goes over the
network backbone-invalid (see "Securing the Intranet," page 11).
     Of course, **client-server** and intranet architectures do
not present an either/or choice. Most companies find that both...check on
the status of the network and find their own online help facilities, thus
reducing the **load** on help desk staffers. A continuing
reassessment of user needs and satisfaction levels is also...

? t s23/k/4

23/K/4 (Item 1 from file: 148)
Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rights reserved.

...6244
     www.magic.sw.com
     Overall Grade: B+
     Pros: Well-suited for developing high-volume **transaction
processing** systems.
     Cons: Tough for novices to learn. Costly
     I tend to resist one-size-fits...

...Control manages dynamic partitioning, a requirement for enterprise-class
application development environments. It results in **reduced** network
traffic, improved availability and enhanced application scalability.
A non-CORBA-compliant Object Request Broker enhances **load** balancing
and **reduces** network **traffic.** It handles online transactions
among multiple clients and servers, and maintains application integrity for
online and **batch** applications in asynchronous and synchronous modes.
The product's underlying technology is complex, but tasks...

...all the same logic, Magic allows you to develop hybrid applications that run simultaneously on **fat** and thin **clients**. One especially well-implemented feature, a link/join from multiple databases, enables you to create...
...secure on the server.

A new Dispatch Monitor (application monitor) provides an integrated view of **client/server** topologies throughout the enterprise.

?

Logon

Welcome to DialogLink - Version 5
Revolutionize the Way You Work!

New on Dialog
Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*® (*DWPI*SM) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new DWPI enhancements and report templates at http://www.dialog.com/dwpi.

DialogLink 5 Release Notes
New features available in the latest release of DialogLink 5 (November 2005)

• Ability to resize images for easier incorporation into DialogLink Reports

• New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)

• Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database

• Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Off Line

* * *

Connecting to Rob Pond - Dialog - 264751

? B 15, 9, 610, 810, 275, 476, 624, 621, 636, 613, 813, 16, 160, 634, 148, 20, 35, 583,
65, 2, 474, 475, 99, 256, 348, 349, 347, 635, 570, PAPERSMJ, PAPERSEU, 47

[File 15] **ABI/Inform(R)** 1971-2007/Mar 26
(c) 2007 ProQuest Info&Learning. All rights reserved.

[File 9] **Business & Industry(R)** Jul/1994-2007/Mar 26
(c) 2007 The Gale Group. All rights reserved.

[File 610] **Business Wire** 1999-2007/Mar 27
(c) 2007 Business Wire. All rights reserved.
File 610: File 610 now contains data from 3/99 forward. Archive data (1986-2/99) is available in File 810.

[File 810] **Business Wire** 1986-1999/Feb 28
(c) 1999 Business Wire . All rights reserved.

[File 275] **Gale Group Computer DB(TM)** 1983-2007/Mar 26
(c) 2007 The Gale Group. All rights reserved.

[File 476] **Financial Times Fulltext** 1982-2007/Mar 27
(c) 2007 Financial Times Ltd. All rights reserved.

[File 624] **McGraw-Hill Publications** 1985-2007/Mar 26
(c) 2007 McGraw-Hill Co. Inc. All rights reserved.
File 624: Homeland Security & Defense and 9 Platt energy journals added Please see HELP NEWS624 for more

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Mar 26
(c) 2007 The Gale Group. All rights reserved.

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Mar 26
(c) 2007 The Gale Group. All rights reserved.

[File 613] **PR Newswire** 1999-2007/Mar 27
(c) 2007 PR Newswire Association Inc. All rights reserved.
File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.

[File 813] **PR Newswire** 1987-1999/Apr 30
(c) 1999 PR Newswire Association Inc. All rights reserved.

[File 16] **Gale Group PROMT(R)** 1990-2007/Mar 26
(c) 2007 The Gale Group. All rights reserved.

[File 160] **Gale Group PROMT(R)** 1972-1989
(c) 1999 The Gale Group. All rights reserved.

[File 634] **San Jose Mercury** Jun 1985-2007/Mar 23
(c) 2007 San Jose Mercury News. All rights reserved.

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Mar 16
(c)2007 The Gale Group. All rights reserved.

[File 20] **Dialog Global Reporter** 1997-2007/Mar 27
(c) 2007 Dialog. All rights reserved.

[File 35] **Dissertation Abs Online** 1861-2007/Feb

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13
File 583: This file is no longer updating as of 12-13-2002.

[File 65] **Inside Conferences** 1993-2007/Mar 26

[File 2] **INSPEC** 1898-2007/Mar W3

[File 474] **New York Times Abs** 1969-2007/Mar 27

[File 475] **Wall Street Journal Abs** 1973-2007/Mar 27

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Feb

[File 256] **TecInfoSource** 82-2007/Oct

[File 348] **EUROPEAN PATENTS** 1978-2007/ 200708
File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

[File 349] **PCT FULLTEXT** 1979-2007/UB=20070315UT=20070308
File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

[File 347] **JAPIO** Dec 1976-2006/Nov(Updated 070228)

[File 635] **Business Dateline(R)** 1985-2007/Mar 24

[File 570] **Gale Group MARS(R)** 1984-2007/Mar 26

[File 387] **The Denver Post** 1994-2007/Mar 26

[File 471] **New York Times Fulltext** 1980-2007/Mar 27

[File 492] **Arizona Repub/Phoenix Gaz** 19862002/Jan 06
File 492: This file is no longer updating.

[File 494] **St LouisPost-Dispatch** 1988-2007/Mar 24

[File 631] **Boston Globe** 1980-2007/Mar 22
(c) 2007 Boston Globe. All rights reserved.

[File 633] **Phil.Inquirer** 1983-2007/Mar 22
(c) 2007 Philadelphia Newspapers Inc. All rights reserved.

[File 638] **Newsday/New York Newsday** 1987-2007/Mar 27
(c) 2007 Newsday Inc. All rights reserved.

[File 640] **San Francisco Chronicle** 1988-2007/Mar 25
(c) 2007 Chronicle Publ. Co. All rights reserved.

[File 641] **Rocky Mountain News** Jun 1989-2007/Mar 26
(c) 2007 Scripps Howard News. All rights reserved.

[File 702] **Miami Herald** 1983-2007/Mar 18
(c) 2007 The Miami Herald Publishing Co. All rights reserved.

[File 703] **USA Today** 1989-2007/Mar 26
(c) 2007 USA Today. All rights reserved.

[File 704] **(Portland)The Oregonian** 1989-2007/Mar 25
(c) 2007 The Oregonian. All rights reserved.

[File 713] **Atlanta J/Const.** 1989-2007/Mar 25
(c) 2007 Atlanta Newspapers. All rights reserved.

[File 714] **(Baltimore) The Sun** 1990-2007/Mar 23
(c) 2007 Baltimore Sun. All rights reserved.

[File 715] **Christian Sci.Mon.** 1989-2007/Mar 26
(c) 2007 Christian Science Monitor. All rights reserved.

[File 725] **(Cleveland)Plain Dealer** Aug 1991-2007/Mar 26
(c) 2007 The Plain Dealer. All rights reserved.

[File 735] **St. Petersburg Times** 1989- 2007/Mar 25
(c) 2007 St. Petersburg Times. All rights reserved.

[File 477] **Irish Times** 1999-2007/Mar 26
(c) 2007 Irish Times. All rights reserved.

[File 710] **Times/Sun.Times(London)** Jun 1988-2007/Mar 27
(c) 2007 Times Newspapers. All rights reserved.

[File 711] **Independent(London)** Sep 1988-2006/Dec 12
(c) 2006 Newspaper Publ. PLC. All rights reserved.
File 711: Use File 757 for full current day's news of the Independent, as as well as full coverage of many additional European news sources.

[File 756] **Daily/Sunday Telegraph** 2000-2007/Mar 27
(c) 2007 Telegraph Group. All rights reserved.

[File 757] **Mirror Publications/Independent Newspapers** 2000-2007/Mar 27
(c) 2007. All rights reserved.

```
?   S PD<20030627 AND PD>19970627

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

>>>W:  One or more prefixes are unsupported

   or undefined in one or more files.

S1    59501753    S PD<20030627 AND PD>19970627


?   s client-in-charge or (client(2w)charge)

Processing

           0    CLIENT-IN-CHARGE

     3628784    CLIENT

     6659645    CHARGE

        1137    CLIENT(2W)CHARGE

S2       1137    S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)


?   S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

Processing
```

```
           1    SERVER-CENTRIC
           0    SERVER-HEAVY
     2380445    SERVER
           0    CENTRIC HEAVY
     1064586    FAT
         940    SERVER(2N)(CENTRIC HEAVY OR FAT)
S3       941    S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))


?  d s

Set     Items   Description
S1  59501753    S PD<20030627 AND PD>19970627
S2      1137    S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)
S3       941    S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))


?  S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(thin or CENTRIC OR HEAVY OR FAT))
Processing
           0    CLIENT-CENTRIC
           0    CLIENT-HEAVY
     3628784    CLIENT
     2330902    THIN
      348585    CENTRIC
     4165026    HEAVY
     1064586    FAT
       77606    CLIENT(3N)(((THIN OR CENTRIC) OR HEAVY) OR FAT)
S4     77606    S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(THIN OR CENTRIC OR HEAVY
OR FAT))


?  d s

Set     Items   Description
S1  59501753    S PD<20030627 AND PD>19970627
S2      1137    S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)
S3       941    S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))
S4     77606    S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(THIN OR CENTRIC OR HEAVY
OR FAT))
```

```
?  s s1 and s2 and (s3 or s4)

        59501753    S1

            1137    S2

             941    S3

           77606    S4

S5             8    S S1 AND S2 AND (S3 OR S4)


?  t s5/k/all
```

5/K/1 (Item 1 from file: 15)
ABI/Inform(R)
Microsoft mulls thin-client server pricing

Abstract:

```
...up to a set number of simultaneous users.  Microsoft is also evaluating
some kind of client-side charge that would be higher for
terminals than for PCs.
```

Text:

```
...model for WBT Server, according to John Frederiksen, Microsoft's group


program manager for the thin-client offering. Citrix uses
concurrent licensing with which customers buy the server software that can
be...

...number of simultaneous users. Microsoft favors perseat licensing.

Microsoft also is evaluating some kind of client-side charge
that would be higher for terminals than for PCs, Frederiksen said. The
rationale is that...

...final product is supposed to ship by June 1.

(Table Omitted)
Captioned as: Microsoft calculates thin-client price
```

5/K/2 (Item 1 from file: 275)
Gale Group Computer DB(TM)

Text:

...Workstation on every desktop, Microsoft effectively added a cost of $130
- $260 to each Windows **thin client,** a **charge** many
users regarded as a tax. Now Microsoft says it will offer a new Terminal...

19990119

5/K/3 (Item 1 from file: 636)
Gale Group Newsletter DB(TM)
(USE FORMAT 7 FOR FULLTEXT)
Text:

...Workstation on every desktop, Microsoft effectively added a cost of $130
- $260 to each Windows **thin client,** a **charge** many
users regarded as a tax. Now Microsoft says it will offer a new Terminal...

19990119

5/K/4 (Item 1 from file: 16)
Gale Group PROMT(R)
(USE FORMAT 7 FOR FULLTEXT)

Text:

...Workstation on every desktop, Microsoft effectively added a cost of
$130 - $260 to each Windows **thin client,** a **charge** many
users regarded as a tax. Now Microsoft says it will offer a new Terminal...

19990119

5/K/5 (Item 1 from file: 148)
Gale Group Trade & Industry DB

Text:

...Workstation on every desktop, Microsoft effectively added a cost of $130
- $260 to each Windows **thin client,** a **charge** many
users regarded as a tax. Now Microsoft says it will offer a new Terminal...

19990119

5/K/6 (Item 1 from file: 348)
EUROPEAN PATENTS

Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

Specification: ...than attempt to define a complicated search protocol which may not be feasible for a **thin client** to implement, the discovery service may offload the actual search to XML-based search facilities...do not desire to perform checking of messages against a service's XML schema. The **client** may be too **thin** to perform the checking or may rely on the service gate to perform the checking...may indicate clients that are not to be charged at all.

In some embodiments, a **client** may be too **thin** to support a full gate, or a client may not include software to directly participate...

Claims: ...de service.

16. Procede selon l'une quelconque des revendications precedentes, dans lequel le dispositif **client** prend en **charge** une connexion de transport en plus de ladite liaison de communication directe point-a-point...

5/K/7 (Item 1 from file: 349)
PCT FULLTEXT

	Country	Number	Kind	Date
Patent				19

French Abstract:

...l'IU etant disponibles localement au niveau du dispositif client. De cette maniere, le dispositif **client** ne se **charge** que du rendu reel de l'IU. Les objets de donnees de source sont telecharges... ...du serveur d'IU vers le dispositif

client quand cela est necessaire et le dispositif **client charge** l'IU au moyen des objets de donnees de source telecharges. Le dispositif client utilise...

Detailed Description:

...have taken the classic approach of providing the device with more functionality, thus creating a **fat client** device. For example, some providers add software and features to their platforms and applications to... ...device.

Three variables that determine practicality to the end user are portability, affordability, and value. **Fat client** devices, while benefiting from additional functionality, usually suffer a decrease in portability, affordability, product practicality... ...mainstream adoption. In addition, a closer look at the
functionality actually being delivered by such **fat client** devices reveals further limitations. For example, although such devices can usually access simple POP3 and... ...for their wireless HCDs and will have no access to corporate server-based PIM data.

Thin client architectures can be segmented into three typical categories.

5 web interfaces, virtual machines, and thin...many of the same limitations as a virtual machine.

Unlike most of the so-called "**thin client**" technologies discussed herein, ActiveX leverages the OS and platform directly, making it a powerful solution... ...OS and processor configurations abound.

Furthermore, ActiveX is in some ways a return to the **fat client** concept of installing client-side software for local processing.

With the increase in network bandwidth... ...IS professionals scramble to lower total cost of ownership. All of these solutions employ a **thin client** that can be ported to multiple platforms, and provide the user with a full graphical a relatively **thin client** for reduced **client**-side resource demands; an interactive end user experience with persistent state; client platform independence; leveraging...any other application. The result is an end user experience similar to that of a **fat client**, with much of the value and computing power associated with terminal server solutions.

Exqmple Email...clients need not be specially configured to support each application. For example, in a typical **fat client** environment, opening an email with an attached word processor document requires a client side email...the appropriate server-based application.

Ultimately, the distributed U1 system offers the flexibility of a **fat client** experience without the resource demands of such a system. Client devices can be smaller, have less processing power, less memory, and longer battery life while having more functionality than current **fat client** devices.

General System Architecture
FIG. 7 is a schematic representation of the server and client...of the client platforra OS. Leveraging native controls improves performance and provides a more interactive, **fat client** feel to the remote application. In addition, such leveraging lowers the overall network bandwidth requirements...

5/K/8 (Item 2 from file: 349)

	Country	Number	Kind	Date
Patent				19

French Abstract:

...structure de donnees de cet objet construit. L'objet construit initialise est ensuite transmis au **client** et **charge**. Un ou plusieurs procedes sont appeles au niveau du client de facon a generer le...

Detailed Description:

...system or
programming or processing environment, including embedded devices (e.g.,
web phones, etc.) and **"thin"** **client** processing environments (e.g.,, network computers (NC's), etc.). An example of a general computer...

? t s5/7/6

5/7/6 (Item 1 from file: 348)
EUROPEAN PATENTS
01379007
METHOD AND APPARATUS FOR PROXIMITY DISCOVERY OF SERVICES
VERFAHREN UND VORRICHTUNG ZUR ERMITTLUNG VON BENACHBARTEN DIENSTEN
PROCEDE ET APPAREIL POUR DECOUVRIR LA PROXIMITE DE SERVICES

Patent Assignee:

• **Sun Microsystems, Inc.**; (2616592)
4150 Network Circle; Santa Clara, California 95054; (US)
(Proprietor designated states: all)

Inventor:

• **SLAUGHTER, Gregory, L.**
3326 Emerson St.; Palo Alto, CA 94306; (US)

• **SAULPAUGH, Thomas, E.**
6938 Bret Harte Dr.; San Jose, CA 95120; (US)

- **TRAVERSAT, Bernard, A.**
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Claims: EP 1285354 B1

1. A method for accessing a proximity service, comprising:

a client device (2150) forming (2190) a direct point-to-point communication link with a service device (2170);

the client device directly requesting (2192) to the service device a document that describes an interface to access a service provided by the service device;

the client device receiving (2194) said document directly from the service device, wherein said document comprises information describing how to access the service; wherein said requesting and said receiving are performed over said direct point-to-point communication link; and

the client device using the information from said document to access (2196) the service.

2. The method as recited in claim 1, wherein said requesting comprises the client sending an advertisement request message for the service to the service device over the direct point-to-point communication link, wherein the advertisement request message is in a data representation language.

3. The method as recited in claim 2, wherein the data representation language is eXtensible Markup Language (XML).

4. The method as recited in any preceding claim, wherein said document comprises a service advertisement (2178) for the service, wherein said service advertisement comprises a schema specifying an interface to at least a portion the service.

5. The method as recited in claim 4, wherein said schema is an eXtensible Markup Language (XML) schema defining XML messages for a client on the client device to send to the service and the service to send to the client in order for the client to access capabilities of the service.

6. The method as recited in claim 5, wherein the client device using the information from said document comprises the client sending one or more of said XML messages to the service over said direct point-to-point communication link.

7. The method as recited in any preceding claim, wherein said receiving comprises receiving said document in an advertisement request response message sent from the service over said direct point-to-point communication link, wherein the advertisement request response message is in a data representation language.

8. The method as recited in claim 7, wherein the data representation language is eXtensible Markup Language (XML).

9. The method as recited in any preceding claim, wherein the client device is in physical proximity of the service device.

10. The method as recited in any of claims 1 to 8, wherein said direct point-to-point communication link is an IrDA infrared link.

11. The method as recited in any of claims 1 to 8, wherein the client device is in wireless proximity of the service device.

12. The method as recited in any preceding claim, wherein said requesting comprises including a client security credential in a request to said service device for said document, and wherein said service device authenticates said client security credential before sending said document to the client device.

13. The method as recited in any preceding claim, wherein said client device using the information from said document to access the service comprises:

a client on the client device requesting a security credential from an authentication service specified in said document;

the client receiving said security credential; and

the client including said security credential with a subsequent request to the service to access a capability of the service.

14. The method as recited in claim 13, further comprising the service verifying the client's security credential before allowing access to the capability.

15. The method as recited in claim 14, wherein said authentication service is provided by the service device.

16. The method as recited in any preceding claim, wherein the client device supports a transport connection in addition to said direct point-to-point communication link, wherein said client device using the information from said document to access the service comprises the client device making said document available to other devices over said transport connection, wherein the client device provides a bridge from said transport connection to said direct point-to-point communication link so that the other devices may access the service.

17. The method as recited in claim 16, wherein said transport connection comprises a network connection.

18. The method as recited in claim 17, wherein said network connection comprises an Internet connection.

19. A system, comprising:

a service device (2170) configured to support a direct point-to-point communication link and provide a service;

a client device (2150) configured to form said direct point-to-point communication link with the service device; wherein the client device is further configured to directly request from the service device a document that describes an interface to access the service;

wherein the service device is further configured to provide said document directly to the client device over said direct point-to-point communication link; and

wherein the client device is further configured to use the information from said document to access the service.

20. The system as recited in claim 19, wherein the client device is configured to request said document by sending an advertisement request message for the service to the service device over the direct point-to-point communication link, wherein the advertisement request message is in a data representation language.

21. The system as recited in claim 20, wherein the data representation language is extensible Markup Language (XML).

22. The system as recited in any of claims 19 to 21, wherein said document comprises a service advertisement (2178) for the service, wherein said service advertisement comprises a schema specifying an interface to at least a portion the service.

23. The system as recited in claim 22, wherein said schema is an eXtensible Markup Language (XML) schema defining XML messages for a client on the client device to send to the service and the service to send to the client in order for the client to access capabilities of the service.

24. The system as recited in claim 23, wherein the client device is configured to use the information from said document to send one or more of said XML messages to the service over said direct point-to-point communication link.

25. The system as recited in any of claims 19 to 24, wherein the client device is configured to receive said document in an advertisement request response message sent from the service over said direct point-to-point communication link, wherein the advertisement request response message is in a data representation language.

26. The system as recited in claim 25, wherein the data representation language is eXtensible Markup Language (XML).

27. The system as recited in any of claims 19 to 26, wherein the client device is in physical proximity of the service device.

28. The system as recited in any of claims 19 to 26, wherein said direct point-to-point communication link is an IrDA infrared link.

29. The system as recited in any of claims 19 to 26, wherein the client device is in wireless proximity of the service device.

30. The system as recited in any of claims 19 to 29, wherein the client device is configured to include a client security credential in a request to said service device for said document, and wherein said service device is configured to authenticate said client security credential before sending said document to the client device.

31. The system as recited in any of claims 19 to 30, wherein said client device is configured to:

request a security credential from an authentication service specified in said document;

receive said security credential; and

include said security credential with a subsequent request to the service to access a capability of the service.

32. The system as recited in claim 31, wherein the service is configured to verify the client's security credential before allowing access to the capability.

33. The system as recited in claim 32, wherein said authentication service is provided by the service device.

34. The system as recited in claim 19, wherein the client device is configured to support a transport connection in addition to said direct point-to-point communication link, wherein said client device is further configured to make said document available to other devices over said transport connection and provide a bridge from said transport connection to said direct point-to-point communication link so that the other devices may access the service.

35. The system as recited in claim 34, wherein said transport connection comprises a network connection.

36. The system as recited in claim 35, wherein said network connection comprises an Internet connection.

37. A client device (2150), comprising:

a port (2156) configured to form a direct point-to-point communication link with a service device;

an interface (2154) configured to directly request over the point-to-point communication link a document that describes an interface to access a service; wherein the interface is further configured to receive said document directly from the service over the point-to-point communication link; and

wherein the interface is further configured to use the information from said document to access the service.

38. A service device (2170), comprising:

a port (2172) configured to form a direct point-to-point communication link with a client device;

an interface (2174) configured to receive over the point-to-point communication link a request from a client for a document (2178) that describes an interface to access the service (2176), wherein the interface is further configured to provide said document directly to the client over the point-to-point communication link; and

a service unit configured to be accessed by the client according to information specified in said document.

39. A carrier medium comprising program instructions, wherein the program instructions are computer-executable on a client device (2150) to implement:

forming a direct point-to-point communication link with a service device (2170);

directly requesting to the service device a document that describes an interface to access a service provided by the service device;

receiving said document directly from the service device, wherein said document comprises information describing how to access the service; wherein said requesting and said receiving are performed over said direct point-to-point communication link; and

using the information from said document to access the service.

40. A computer program comprising computer-executable instructions for implementing the method of any of claims 1 to 18.

Claims: EP 1285354 B1

1. Verfahren fur das Zugreifen auf benachbarte Dienste, das aufweist:

eine Clientvorrichtung (2150), die eine direkte Punkt-zu-Punkt-Kommunikationsverbindung mit einer Serviceeinrichtung (2170) bildet (2190), wobei die Clienteinrichtung direkt bei der Serviceeinrichtung ein Dokument abfragt (2190), das eine Schnittstelle für den Zugriff auf einen Dienst, der von der Serviceeinrichtung bereitgestellt wird, beschreibt,

wobei die Clientvorrichtung das Dokument direkt von der Serviceeinrichtung empfangt (2194), wobei das Dokument Information aufweist, die beschreibt, wie auf den Service zuzugreifen ist,

wobei das Abfragen und das Empfangen über die direkte Punkt-zu-Punkt-Kommunikationsverbindung durchgeführt wird, und

wobei die Clientvorrichtung die Information von dem Dokument verwendet, um auf den Service bzw. den Dienst zuzugreifen (2196).

2. Verfahren nach Anspruch 1, wobei das Abfragen aufweist, das der Client eine Abfrageankundigungsnachricht für den Dienst zu der Diensteinrichtung über die direkte Punkt-zu-Punkt-Kommunikationsverbindung sendet, wobei die Abfrageankundigungsnachricht in einer Datendarstellungssprache ist.

3. Verfahren nach Anspruch 2, wobei die Datendarstellungsnachricht die eXtensible-Markup-Sprache (XML) ist.

4. Verfahren nach einem der vorherigen Anspruche, wobei das Dokument eine Dienstankundigung (2178) für den Dienst aufweist, wobei die Dienstankundigung ein Schema aufweist, das eine Schnittstelle zu zumindest einem Teil des Dienstes spezifiziert.

5. Verfahren nach Anspruch 4, wobei das Schema ein eXtensible-Markup-Language (XML)-Schema ist, das XML-Nachrichten definiert, damit ein Client auf der Clientvorrichtung diese zu dem Dienst und der Dienst diese zu dem Client sendet, um für den Client Zugriff auf die Fahigkeiten des Dienstes zu haben.

6. Verfahren nach Anspruch 5, in dem die Clienteinrichtung, die die Informationen von dem Dokument verwendet, den Client aufweist, der ein oder mehrere der XML-Nachrichten zu dem Dienst über die direkte Punkt-zu-Punkt-Kommunikationsverbindung sendet.

7. Verfahren nach einem der vorherigen Anspruche, wobei das Empfangen des Dokumentes in einer Anfrageankundigungsantwortnachricht aufweist, die von dem Dienst über die direkte Punkt-zu-Punkt-Kommunikationsverbindung gesendet wird, wobei die Anfrageankundigungsantwortnachricht in einer Datendarstellungssprache ist.

8. Verfahren nach Anspruch 7, wobei die Datendarstellungssprache die eXtensible-Markup-Language (XML) ist.

9. Verfahren nach einem der vorherigen Anspruche, wobei die Clienteinrichtung in physischer Nahe zu der Dienst- bzw. Serviceeinrichtung ist.

10. Verfahren nach einem der Anspruche 1 bis 8, wobei die direkte Punkt-zu-Punkt-Kommunikationsverbindung eine IrDA-Infrarotverbindung ist.

11. Verfahren nach einem der Anspruche 1 bis 8, wobei die Clientvorrichtung in Funknahe der Serviceeinrichtung ist.

12. Verfahren nach einem der vorherigen Anspruche, wobei das Abfragen das Einbeziehen eines Clientsicherheitsberechtigungsnachweises in einer Anfrage an die Serviceeinrichtung für dieses Dokument aufweist,

und wobei die Serviceeinrichtung den Clientsicherheitsberechtigungsnachweis authentifiziert, bevor es das Dokument zu der Clienteinrichtung sendet.

13. Verfahren nach einem der vorherigen Anspruche, wobei die Clienteinrichtung, die die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen, aufweist:

einen Client auf der Clienteinrichtung, die einen Sicherheitsberechtigungsnachweis von einem Authentifizierungsservice abfragt, der in dem Dokument spezifiziert ist, wobei der Client den Sicherheitsberechtigungsnachweis empfangt, und

wobei der Client den Sicherheitsberechtigungsnachweis in einer nachfolgenden Anfrage zu dem Dienst aufnimmt, um auf eine Fahigkeit des Dienstes zuzugreifen.

14. Verfahren nach Anspruch 13, das weiterhin den Dienst des Verifizierens des Sicherheitsberechtigungsnachweises des Clients vor dem Erlauben des Zugriffs auf die Fahigkeit aufweist.

15. Verfahren nach Anspruch 14, wobei der Authentifizierungsdienst von der Serviceeinrichtung bereitgestellt wird.

16. Verfahren nach einem der vorherigen Anspruche, wobei die Clienteinrichtung eine Transportverbindung zusatzlich zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung unterstutzt, wobei die Clienteinrichtung, die die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen, die Clienteinrichtung aufweist, die das Dokument anderen Einrichtungen uber die Transportverbindung verfugbar macht, wobei die Clienteinrichtung eine Brucke von der Transportverbindung zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung bereitstellt, so das die anderen Einrichtungen auf den Dienst zugreifen konnen.

17. Verfahren nach Anspruch 16, wobei die Transportverbindung eine Netzwerkverbindung aufweist.

18. Verfahren nach Anspruch 17, wobei die Netzwerkverbindung eine Internetverbindung aufweist.

19. System, das aufweist:

eine Serviceeinrichtung (2170), die derart konfiguriert ist, das sie eine direkte Punkt-zu-Punkt-Kommunikationsverbindung unterstutzt und einen Dienst bereitstellt,

eine Clienteinrichtung (2150), die derart konfiguriert ist, das sie die direkte Punkt-zu-Punkt-Kommunikationsverbindung mit der Serviceeinrichtung bildet, wobei die Clienteinrichtung weiterhin derart konfiguriert ist, das sie direkt von der Serviceeinrichtung ein Dokument anfordert, das eine Schnittstelle beschreibt, um auf den Dienst zuzugreifen,

wobei die Serviceeinrichtung weiterhin derart konfiguriert ist, das sie das Dokument direkt uber die direkte Punkt-zu-Punkt-Kommunikationsverbindung der Clienteinrichtung zur Verfugung stellt, und

wobei die Clienteinrichtung weiterhin derart konfiguriert ist, das sie die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen.

20. System nach Anspruch 19, wobei die Clientvorrichtung derart konfiguriert ist, das sie das Dokument durch Senden einer Abfrageankundigungsnachricht fur den Dienst zu der Diensteinrichtung uber die direkte Punkt-zu-Punkt-Kommunikationsverbindung sendet,

wobei die Abfrageankundigungsnachricht in einer Datendarstellungssprache ist.

21. System nach Anspruch 20, wobei die Datendarstellungssprache die eXtensible-Markup-Language (XML) ist.

22. System nach einem der Anspruche 19 bis 21, wobei das Dokument eine Dienstankundigung (2178) fur den Dienst aufweist, wobei die Dienstankundigung ein Schema aufweist, das eine Schnittstelle zu zumindest einem Teil des Dienstes spezifiziert.

23. System nach Anspruch 22, wobei das Schema ein eXtensible-Markup-Language (XML)-Schema ist, das XML-Nachrichten definiert, damit ein Client auf der Clientvorrichtung diese zu dem Dienst und der Dienst diese zu dem Client sendet, um fur den Client Zugriff auf die Fahigkeiten des Dienstes zu haben.

24. System nach Anspruch 23, wobei die Clienteinrichtung derart konfiguriert ist, das sie die Information von dem Dokument verwendet, um ein oder mehrere der XML-Nachrichten zu dem Dienst uber die direkte Punkt-zu-Punkt-Kommunikationsverbindung zu senden.

25. System nach einem der Anspruche 19 bis 24, wobei die Clienteinrichtung derart konfiguriert ist, das sie das Dokument in einer Anfrageankundigungsantwortnachricht empfangt, die von dem Dienst fur die direkte Punkt-zu-Punkt-Kommunikationsverbindung gesendet wird, wobei die Anfrageankundigungsantwortnachricht in einer Datendarstellungssprache ist.

26. System nach Anspruch 25, wobei die Datendarstellungssprache die eXtensible-Markup-Language (XML) ist.

27. System nach einem der Anspruche 19 bis 26, wobei die Clienteinrichtung in physischer Nahe zu der Serviceeinrichtung ist.

28. System nach einem der Anspruche 19 bis 26, wobei die direkte Punkt-zu-Punkt-Kommunikationsverbindung eine IrDA-Infrarotverbindung ist.

29. System nach einem der Anspruche 19 bis 26, wobei die Clienteinrichtung in Funknahe der Serviceeinrichtung ist.

30. System nach einem der Anspruche 19 bis 29, wobei die Clienteinrichtung derart konfiguriert ist, das sie ein Clientsicherheitsberechtigungsnachweis in einer Anfrage zu der Serviceeinrichtung fur dieses Dokument einbindet, und wobei die Serviceeinrichtung derart konfiguriert ist, das sie den Clientsicherheitsberechtigungsnachweis authentifiziert, bevor das Dokument zu der Clienteinrichtung gesendet wird.

31. System nach einem der Anspruche 19 bis 30, wobei die Clienteinrichtung derart konfiguriert ist, um:

ein Sicherheitsberechtigungsnachweis von einem Authentifizierungsdienst, der in dem Dokument spezifiziert wird, anzufordern,

den Sicherheitsberechtigungsnachweis zu empfangen und

den Sicherheitsberechtigungsnachweis in einer nachfolgende Anfrage an den Dienst einzubinden, um auf eine Fahigkeit des Dienstes zuzugreifen.

32. System nach Anspruch 31, wobei der Dienst derart konfiguriert ist, das er den Sicherheitsberechtigungsnachweis verifiziert, bevor der Zugriff auf die Fahigkeit erlaubt wird.

33. System nach Anspruch 32, wobei der Authentifizierungsdienst von der Serviceeinrichtung bereitgestellt wird.

34. System nach Anspruch 19, wobei die Clienteinrichtung derart konfiguriert ist, das sie eine Transportverbindung zusatzlich zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung tragt bzw. unterstutzt, wobei die Clienteinrichtung weiterhin derart konfiguriert ist, das sie das Dokument anderen Einrichtungen uber die

Transportverbindung verfugbar macht und eine Brucke von der Transportverbindung zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung bereitstellt, so das die anderen Einrichtungen auf den Dienst zugreifen konnen.

35. System nach Anspruch 34, wobei die Transportverbindung eine Netzwerkverbindung aufweist.

36. System nach Anspruch 25, wobei die Netzwerkverbindung eine Intemetverbindung aufweist.

37. Clienteinrichtung (2150), die aufweist:

einen Anschlus (2156), der derart konfiguriert ist, das er eine direkte Punkt-zu-Punkt-Kommunikationsverbindung mit einer Serviceeinrichtung bildet,

ein Interface (2154), das derart konfiguriert ist, das es direkt über die Punkt-zu-Punkt-Kommunikationsverbindung ein Dokument abfragt, das eine Schnittstelle zu dem Zugriff auf einen Dienst beschreibt, wobei die Schnittstelle weiterhin derart konfiguriert ist, das sie das Dokument direkt von dem Dienst uber die Punkt-zu-Punkt-Kommunikationsverbindung empfangt und

wobei die Schnittstelle weiterhin derart konfiguriert ist, das sie die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen.

38. Serviceeinrichtung (2170), die aufweist:

einen Anschlus (2172), der derart konfiguriert ist, das er eine direkte Punkt-zu-Punkt-Kommunikationsverbindung mit einer Clienteinrichtung bildet,

eine Schnittstelle (2174), die derart konfiguriert ist, das sie uber die Punkt-zu-Punkt-Kommunikationsverbindung eine Anfrage von einem Client nach einem Dokument (2178) empfangt, das eine Schnittstelle beschreibt, um auf den Dienst (2176) zuzugreifen, wobei die Schnittstelle weiterhin derart konfiguriert ist, das sie das Dokument direkt dem Client uber die Punkt-zu-Punkt-Kommunikationsverbindung bereitstellt und

eine Serviceeinheit, die derart konfiguriert ist, das auf sie von dem Client entsprechend einer Information, die in dem Dokument spezifiziert ist, zugegriffen werden kann.

39. Tragermedium, das Programmbefehle aufweist, wobei die Programmbefehle auf einer Clienteinrichtung (2150) computerausfuhrbar sind, um zu implementieren:

das Bilden einer direkten Punkt-zu-Punkt-Kommunikationsverbindung mit einer Serviceeinrichtung (2170),

das direkte Abfragen eines Dokumentes von der Serviceeinrichtung, das eine Schnittstelle beschreibt, um auf einen Service zuzugreifen, der von der Serviceeinrichtung bereitgestellt wird,

das Empfangen des Dokuments direkt von der Serviceeinrichtung, wobei das Dokument Information aufweist, die beschreibt, wie auf den Service zuzugreifen ist, wobei das Abfragen und das Empfangen uber die direkte Punkt-zu-Punkt-Kommunikationsverbindung durchgefuhrt wird und

das Verwenden der Information von dem Dokument, um auf den Service bzw. Dienst zuzugreifen.

40. Computerprogramm, das computerausfuhrbare Befehle aufweist fur das Implementieren des Verfahrens nach einem der Anspruche 1 bis 18.

Claims: EP 1285354 B1

1. Procede d'acces a un service de proximite, comprenant :

un dispositif client (2150) formant (2190) une liaison de communication directe point-a-point avec un dispositif de service (2170) ;

le dispositif client demandant directement (2192) au dispositif de service un document qui decrit une interface pour acceder a un service fourni par le dispositif de service ;

le dispositif client recevant (2194) directement ledit document du dispositif de service, dans lequel ledit document comprend des informations decrivant comment acceder au service ; dans lequel ladite demande et ladite reception sont effectuees par l'intermediaire de ladite liaison de communication directe point-a-point ; et

le dispositif client utilisant les informations dudit document pour acceder (2196) au service.

2. Procede selon la revendication 1, dans lequel ladite demande comprend le fait que le client envoie un message de demande d'annonce concernant le service au dispositif de service par l'intermediaire de la liaison de communication directe point-a-point, dans lequel le message de demande d'annonce est dans un langage de representation de donnees.

3. Procede selon la revendication 2, dans lequel le langage de representation de donnees est le Langage de Balisage extensible (XML).

4. Procede selon l'une quelconque des revendications precedentes, dans lequel ledit document comprend une annonce de service (2178) concernant le service, dans lequel ladite annonce de service comprend un schema specifiant une interface avec au moins une partie du service.

5. Procede selon la revendication 4, dans lequel ledit schema est un schema en Langage de Balisage extensible (XML) definissant des messages XML destines a etre envoyes au service par un client sur le dispositif client et au client par le service, afin que le client accede a des fonctionnalites du service.

6. Procede selon la revendication 5, dans lequel le dispositif client utilisant les informations dudit document comprend le fait que le client envoie au service un ou plusieurs desdits messages XML par l'intermediaire de ladite liaison de communication directe point-a-point.

7. Procede selon l'une quelconque des revendications precedentes, dans lequel ladite reception consiste a recevoir ledit document dans un message de reponse a une demande d'annonce envoyee par le service par l'intermediaire de ladite liaison de communication directe point-a-point, dans lequel le message de reponse a une demande d'annonce est dans un langage de representation de donnees.

8. Procede selon la revendication 7, dans lequel le langage de representation de donnees est le Langage de Balisage eXtensible (XML).

9. Procede selon l'une quelconque des revendications precedentes, dans lequel le dispositif client est dans le voisinage physique du dispositif de service.

10. Procede selon l'une quelconque des revendications 1 a 8, dans lequel ladite liaison de communication directe point-a-point est une liaison infrarouge de type IrDA.

11. Procede selon l'une quelconque des revendications 1 a 8, dans lequel le dispositif client est dans un voisinage sans fil du dispositif de service.

12. Procede selon l'une quelconque des revendications precedentes, dans lequel ladite demande consiste a inclure un certificat de securite du client dans une demande faite audit dispositif de service pour ledit document, et dans lequel ledit dispositif de service authentifie ledit certificat de securite de client avant d'envoyer ledit document au dispositif client.

13. Procede selon l'une quelconque des revendications precedentes, dans lequel ledit dispositif client utilisant les informations dudit document pour acceder au service, comprend :

le fait qu'un client sur le dispositif client demande un certificat de securite a un service d'authentification specifie dans ledit document ;

le fait que le client recoit ledit certificat de securite ; et

le fait que ledit client inclut ledit certificat de securite dans une demande ulterieure faite au service pour acceder a une fonctionnalite du service.

14. Procede selon la revendication 13, comprenant en outre le fait que le service verifie le certificat de securite du client avant de permettre l'acces a la fonctionnalite.

15. Procede selon la revendication 14, dans lequel ledit service d'authentification est fourni par le dispositif de service.

16. Procede selon l'une quelconque des revendications precedentes, dans lequel le dispositif **client** prend en **charge** une connexion de transport en plus de ladite liaison de communication directe point-a-point, dans lequel ledit dispositif client utilisant les informations dudit document pour acceder au service comprend le fait que le dispositif client rend disponible ledit document a d'autres dispositifs par l'intermediaire de ladite connexion de transport, dans lequel le dispositif client forme un pont entre ladite connexion de transport et ladite liaison de communication directe point-a-point afin que les autres dispositifs puissent acceder au service.

17. Procede selon la revendication 16, dans lequel ladite connexion de transport comprend une connexion par reseau.

18. Procede selon la revendication 17, dans lequel ladite connexion par reseau comprend une connexion Internet.

19. Systeme, comprenant :

un dispositif de service (2170) configure pour prendre en charge une liaison de communication directe point-a-point et fournir un service ;

un dispositif client (2150) configure pour former ladite liaison de communication directe point-a-point avec le dispositif de service ; dans lequel le dispositif client est en outre configure pour demander directement au dispositif de service un document qui decrit une interface pour acceder au service ;

dans lequel le dispositif de service est en outre configure pour fournir directement ledit document au dispositif client par l'intermediaire de ladite liaison de communication directe point-a-point ; et

dans lequel le dispositif client est en outre configure pour utiliser les informations dudit document pour acceder au service.

20. Systeme selon la revendication 19, dans lequel le dispositif client est configure pour demander ledit document en envoyant au dispositif de service un message de demande d'annonce pour le service par l'intermediaire de la liaison de communication directe point-a-point, dans lequel le message de demande d'annonce est dans un langage de representation de donnees.

21. Systeme selon la revendication 20, dans lequel le langage de representation de donnees est le Langage de Balisage eXtensible (XML).

22. Systeme selon l'une quelconque des revendications 19 a 21, dans lequel ledit document comprend une annonce de service (2178) pour le service, dans lequel ladite annonce de service comprend un schema specifiant une interface avec au moins une partie du service.

23. Systeme selon la revendication 22, dans lequel ledit schema est un schema en Langage de Balisage extensible (XML) definissant des messages XML devant etre envoyes au service par un client sur le dispositif client et au client par le service, afin que le client accede a des fonctionnalites du service.

24. Systeme selon la revendication 23, dans lequel le dispositif client est configure pour utiliser les informations dudit document pour envoyer au service un ou plusieurs desdits messages XML par l'intermediaire de ladite liaison de communication directe point-a-point.

25. Systeme selon l'une quelconque des revendications 19 a 24, dans lequel le dispositif client est configure pour recevoir ledit document dans un message de reponse a la demande d'annonce envoyee par le service par l'intermediaire de ladite liaison de communication directe point-a-point, dans lequel ledit message de reponse a une demande d'annonce est dans un langage de representation de donnees.

26. Systeme selon la revendication 25, dans lequel le langage de representation de donnees est le Langage de Balisage extensible (XML).

27. Systeme selon l'une quelconque des revendications 19 a 26, dans lequel le dispositif client est dans le voisinage physique du dispositif de service.

28. Systeme selon l'une quelconque des revendications 19 a 26, dans lequel ladite liaison de communication directe point-a-point est une liaison infrarouge de type IrDA.

29. Systeme selon l'une quelconque des revendications 19 a 26, dans lequel le dispositif client est dans le voisinage sans fil du dispositif de service.

30. Systeme selon l'une quelconque des revendications 19 a 29, dans lequel le dispositif client est configure pour inclure un certificat de securite du client dans une demande faite audit dispositif de service pour ledit document, et dans lequel ledit dispositif de service est configure pour authentifier ledit certificat de securite du client avant d'envoyer ledit document au dispositif client.

31. Systeme selon l'une quelconque des revendications 19 a 30, dans lequel ledit dispositif client est configure pour :

demander un certificat de securite a un service d'authentification specifie dans ledit document ;

recevoir ledit certificat de securite ; et

inclure ledit certificat de securite dans une demande ulterieure faite au service pour acceder a une fonctionnalite du service.

32. Systeme selon la revendication 31, dans lequel le service est configure pour verifier le certificat de securite du client avant de permettre l'acces a la fonctionnalite.

33. Systeme selon la revendication 32, dans lequel ledit service d'authentification est fourni par le dispositif de service.

34. Systeme selon la revendication 19, dans lequel le dispositif client est configure pour prendre en charge une connexion de transport en plus de ladite liaison de communication directe point-a-point, dans lequel ledit dispositif client est en outre configure pour rendre disponible ledit document a d'autres dispositifs par l'intermediaire de ladite connexion de transport et pour former un pont entre ladite connexion de transport et ladite liaison de communication directe point-a-point afin que d'autres dispositifs puissent acceder au service.

35. Systeme selon la revendication 34, dans lequel ladite connexion de transport comprend une connexion par reseau.

36. Systeme selon la revendication 35, dans lequel ladite connexion par reseau comprend une connexion Internet.

37. Dispositif client (2150), comprenant :

un port (2156) configure pour former une liaison de communication directe point-a-point avec un dispositif de service ;

une interface (2154) configuree pour demander directement par l'intermediaire de la liaison de communication point-a-point un document qui decrit une interface pour acceder a un service ; dans lequel l'interface est en outre configuree pour recevoir directement ledit document du service par l'intermediaire de la liaison de communication point-a-point ; et

dans lequel l'interface est en outre configuree pour utiliser les informations dudit document pour acceder au service.

38. Dispositif de service (2170), comprenant :

un port (2172) configure pour former une liaison de communication directe point-a-point avec un dispositif client ;

une interface (2174) configuree pour recevoir par l'intermediaire de la liaison de communication point-a-point une demande d'un client pour un document (2178) qui decrit une interface pour acceder au service (2176), dans lequel l'interface est en outre configuree pour fournir directement ledit document au client par l'intermediaire de la liaison de communication point-a-point ; et

une unite de service configuree pour que le client y accede en conformite avec des informations specifiees dans ledit document.

39. Support d'informations comprenant des instructions de programmes, dans lequel les instructions de programmes peuvent etre executees par un ordinateur sur un dispositif client (2150) pour :

former une liaison de communication directe point-a-point avec un dispositif de service (2170) ;

demander directement au dispositif de service un document qui decrit une interface pour acceder a un service fourni par le dispositif de service ;

recevoir directement ledit document du dispositif de service, dans lequel ledit document comprend les informations decrivant comment acceder au service ; dans lequel ladite demande et ladite reception sont effectuees par l'intermediaire de ladite liaison de communication directe point-a-point ; et

utiliser les informations dudit document pour acceder au service.

40. Programme informatique comprenant des instructions executables par un ordinateur pour mettre en oeuvre le procede selon l'une quelconque des revendications 1 a 18.

```
S1    59501753   S PD<20030627 AND PD>19970627

S2        1137   S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)

S3         941   S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

S4       77606   S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(THIN OR CENTRIC OR HEAVY
OR FAT))

S5           8   S S1 AND S2 AND (S3 OR S4)


?  s transaction or transactions
Processing
      3602978    TRANSACTION
      2750065    TRANSACTIONS
S6    5520416    S TRANSACTION OR TRANSACTIONS


?  s (transaction(5n)(object or objects or component or components or detail or details)
>>>W:  Unmatched parentheses
>>>E:  There is no result


?  S TRANSACTION(5N)(OBJECT OR OBJECTS OR COMPONENT OR COMPONENTS OR DETAIL OR DETAILS)
Processing
Processing
Processing
Processing
      3602978    TRANSACTION
      2237199    OBJECT
      1362740    OBJECTS
      3841223    COMPONENT
      5702790    COMPONENTS
      2626364    DETAIL
      5465461    DETAILS
S7      72766    S TRANSACTION(5N)(OBJECT OR OBJECTS OR COMPONENT OR COMPONENTS OR DETAIL
OR DETAILS)


?  s s1 and (s2 or s3 or s4) and s7
Processing
      59501753   S1
```

```
        1137    S2

         941    S3

       77606    S4

       72766    S7

S8       519    S  S1 AND (S2 OR S3 OR S4) AND S7


?  d s

Set      Items    Description

S1   59501753    S  PD<20030627 AND PD>19970627

S2       1137    S  CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)

S3        941    S  SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

S4      77606    S  CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(THIN OR CENTRIC OR HEAVY
OR FAT))

S5          8    S  S1 AND S2 AND (S3 OR S4)

S6    5520416    S  TRANSACTION OR TRANSACTIONS

S7      72766    S  TRANSACTION(5N)(OBJECT OR OBJECTS OR COMPONENT OR COMPONENTS OR DETAIL
OR DETAILS)

S8        519    S  S1 AND (S2 OR S3 OR S4) AND S7


? Please enter a command or be logged off in 5 minutes

?  Logoff
```

Estimated Cost Summary

Project		Client		Charge Code		Searcher		Job		Service Code	User Number
						Rob Pond				51	264751
Date		Time		SessionID		Subsession		Subaccount			
03/27/2007		14:15:18		42		3					
Data Base	Dial Units	Access Charge	Print Credit	Types	Prints	Report	Rank	Links	CSS	Total	
15	0.4830	2.61	0.00	0.26	0.00	0.00	0.00	0.00	0.00	2.87	
9	0.5610	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	
610	0.3770	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	
810	0.1810	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	
275	0.3620	1.96	0.00	0.70	0.00	0.00	0.00	0.00	0.00	2.66	
476	0.2220	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	
624	0.2500	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	
621	0.7500	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05	
636	0.6120	3.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31	

613	0.3970	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
813	0.2310	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
16	1.6750	9.05	0.00	0.26	0.00	0.00	0.00	0.00	0.00	9.31
160	0.0580	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
634	0.1290	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
148	2.1260	11.48	0.00	0.26	0.00	0.00	0.00	0.00	0.00	11.74
20	5.7560	5.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.76
35	0.0730	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
583	0.4680	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57
65	0.0500	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
2	0.2610	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56
474	0.1620	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
475	0.1010	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
99	0.1570	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
256	0.0390	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
348	1.5090	8.18	0.00	6.55	0.00	0.00	0.00	0.00	0.00	14.73
349	1.0370	4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.93
347	0.8060	8.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.83
635	0.3770	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
570	0.2800	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.51
387	0.1230	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
471	0.2760	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
492	0.1830	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18

494	0.1920	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
631	0.1810	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
633	0.1510	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
638	0.2050	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
640	0.1620	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
641	0.1830	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
702	0.2200	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
703	0.1010	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
704	0.1920	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
713	0.2090	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
714	0.1570	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
715	0.1030	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
725	0.1030	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
735	0.1530	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
477	0.1360	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
710	0.2720	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
711	0.2130	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
756	0.1510	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
757	0.4870	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
47	0.4590	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48
Sub	24.1020	$83.11	$0.00	$8.03	$0.00	$0.00	$0.00	$0.00	$0.00	$91.14

Pond, Robert

From: Earle Jennings [ewj@ix.netcom.com]
Sent: Monday, January 29, 2007 4:32 PM
To: Pond, Robert
Subject: Re: Follow-up 10/607,617

Thank you, Earle

Pond, Robert wrote:

> Earle,
> Key citations from the two patents mentioned.
>
>
> US 6332163: col. 31, lines 15-34; Fig. 185; col. 300, lines 30-34; col. 297, lines 15-40;
> col. 298, lines 15-27; col. 300, lines 52-58; col. 302, line 55 through col. 303, line 6;
> col. 303, lines 52-62; 304, line 33 through col. 305, line 4; col. 45, line 21 through
> col. 47; Fig. 187; Fig. 190; Fig. 193; col. 93, lines 31-55; col. 304, lines 33-42.
> Multiple movtivation jump-off points to ascertain suggestion made etc.
>
> I extracted the above from the draft non-final action based on order of use so there may be some
> overlap.
>
> US6697824 (same inventor and reference same co-related patent as '163 does) Fig. 41; col. 80,
> lines 30-64. This is very strong business-level art with multiple motivation jump-off
> points to pull in a third reference where necessary.
>
>
>
> -----Original Message-----
> **From:** Pond, Robert
> **Sent:** Monday, January 29, 2007 9:49 AM
> **To:** 'ewj@ix.netcom.com'
> **Subject:** RE: Scheduling a meeting regarding Application 10/607,617
>
> Earle,
> Can you give me a call today or tomorrow? I'll be available today from 10:30 EST-12noon;
> 2PM on.
>
> Rob Pond
> 571-272-6760

Paper # 20070125